Pine Technical &
Community College

Starting out
or Starting over

2024-2025
COLLEGE CATALOG

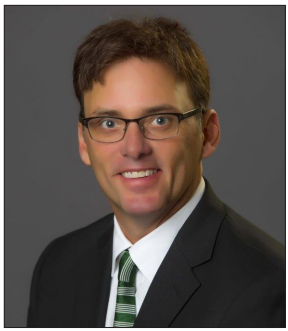
Pine Technical & Community College

PINE TECHNICAL & COMMUNITY COLLEGE CATALOG
2024-2025

In accordance with requirements set forth in the American Disabilities Act, this document is available in alternative formats to individuals with disabilities by calling 800-521-7463 or (TTY) 320-629-1030.

Pine Technical & Community College is an affirmative action, equal opportunity employer and educator.

The Catalog is periodically updated. For the most current version, please refer to our website: www.pine.edu



"Demand for our graduates remains very strong. Nothing makes us happier than seeing people take the skills they've learned at Pine into the marketplace and be recruited by multiple employers."

Too Good to Be True?

After dedicating nearly three decades working at two-year colleges, I have come to accept two facts: there will always be more work to do in spreading the message of the great value a two-year education offers, and there are amazing career opportunities that open up for graduates with a degree from a two-year college.

Pine Technical & Community College is arguably at the top of the list when it comes to offering the best value in a college education. When considering tuition rates and all associated fees, we are the lowest cost in the state for most students. This affordability, complimented by our personalized services, make Pine a truly unique experience for all of our students. Following graduation, our related employment rates are another point of pride as graduates are finding jobs in the field in which they are trained at a higher rate than most other two-year colleges.

Additionally, our small class sizes lead to big outcomes as Pine graduates are at or near the top of all colleges in outcomes on both state and national licensing exams. Low cost coupled with great performance equals a great value! Some things might seem too good to be true, but they're not.

More than ever before, people are making the choice to pursue their dreams at Pine whether they are starting out or starting over.

All the best,

Joseph L. Mulford
President
Pine Technical and Community College

Catalog 2024-2025

All information in this document is accurate at the time of printing. Policies, procedures and practices are continuously reviewed and revised and may change throughout the academic year. Current Pine Technical and Community College policies can be found at www.pine.edu/about/public-information-and-policies/campus-policies/.

Pine Technical and Community College has a long history of providing quality education to the Pine County community and beyond since 1965. Pine Technical and Community College provides opportunities and resources for learning and offers services that enhance individuals' abilities.

Minnesota State

Office of the General Counsel

It is our intention to provide resources relevant to the academic, extracurricular, and social lives of students. Every effort has been made to ensure the accuracy of the material contained within this catalog as of the date of publication. However, all policies, procedures, academic schedules, program information, and fees are subject to change at any time by appropriate action of the faculty, the college administration, the Minnesota State Colleges and Universities Board of Trustees, or the Minnesota Legislature without prior notification.

The provisions of this catalog do not constitute a contract between the student and the college. The information in this catalog is for use as an academic planning tool and is subject to change at any time. Upon publication of this catalog, all previous issues are revoked.

Student Responsibility for Catalog Information

Each student is responsible for compliance with the information appearing in this catalog. Failure to read the regulations and policies will not be considered an excuse for noncompliance.

Pine Technical and Community College is committed to a policy of nondiscrimination in employment and educational opportunity. Minnesota State prohibits discrimination and harassment against persons in the terms and conditions of employment, personnel practices, or access to and participation in educational programs, services, and activities on the basis of membership or perceived membership in any of the following protected classes: race, sex (including pregnancy, child birth, and related medical conditions), color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender

identity, gender expression, veteran status, familial status, and membership or activity in a local human rights commission. Protected class also includes genetic information for employees.

Harassment on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, gender expression, or familial status is prohibited.

Harassment may occur in a variety of relationships, including faculty and student, supervisor and employee, student and student, staff and student, employee and employee, and other relationships with persons having business at, or visiting, the educational or working environment.

This document is available in alternative formats to individuals with disabilities by calling the Office of Accessibility and Accommodation Services at 800-521-7463 or MN Relay 711.

Rights & Protections Provided by the American Disabilities Act

Pine Technical and Community College does not discriminate on the basis of disability in the admission or access to, or treatment or employment in its programs or activities. The Office of Accessibility and Accommodation Services coordinates compliance with the nondiscrimination requirements contained in Part 35 of the Department of Justice Regulations. Information concerning the provision of the Americans with Disabilities Act, and the rights provided thereunder, are available from the Office of Accessibility and Accommodation Services.

Contact Information:
Robin Johnson
Student Success Coordinator
320-629-5174 or 800-521-7463
MN Relay 711
Email: Robin.Johnson@pine.edu or mysuccess@pine.edu

Degrees Offered

Associate of Arts

An Associate of Arts (AA) degree may be awarded upon successful completion of a 60-credit program in the liberal arts and sciences curriculum designed to constitute the first two years of a baccalaureate degree. An AA degree requires the completion of at least 40 credits of general education curriculum that fulfills the Minnesota Transfer Curriculum goal areas.

Associate of Science Degree

An Associate of Science (AS) degree may be awarded upon successful completion of a 60-credit program in a designated field or area which transfers to a baccalaureate major in a related scientific, technological, or other non-liberal arts professional field. An AS degree must have one or more articulation agreement(s) between the institution awarding the AS degree and the institution awarding a related baccalaureate degree. An AS degree shall include a minimum of 30 semester credits in general education selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum. An AS degree may also be designed to prepare students for employment.

Associate of Applied Science Degree

An Associate of Applied Science (AAS) degree may be awarded upon successful completion of a 60 to 72 credit program. An AAS degree is intended to prepare students for employment or may be designed to transfer to a related baccalaureate major. An AAS degree requires a minimum of 15 credits selected from at least three of the ten goal areas. At least 30 credits must be in the academic program's occupational or technical field of preparation. General education courses shall be selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum.

Diploma

A diploma may be awarded upon successful completion of a 31 to 72 credit program. A diploma is intended to provide students with employment skills.

Certificate

A certificate may be awarded upon successful completion of a 9 to 30 credit specialized program of study. An undergraduate certificate less than 9 or more than 30 credits in length may be approved when the academic program prepares an individual for employment and the length or the designation as a certificate is (1) required by an employer, a licensing body or other regulatory agency, accrediting association, or board, or (2) based on a formal task analysis conducted within the previous three years and the results endorsed by an advisory committee.

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Academic Calendar

FALL SEMESTER 2024

AUG. 2024

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

26 Fall semester begins
31 No classes

SEPT. 2024

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2 Labor Day Holiday
Campus closed - No classes
7 First Saturday class

OCT. 2024

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

7-11 Advising Week - Students meet with advisors for Spring class selection & program completion
14 Continuing student and veterans registration for Spring and Summer 2025 begins
16 New student registration for Spring and Summer 2025 begins
19 Mid-term ends - Saturday classes held
17-18 Non-contract faculty days - No classes

NOV. 2024

S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

11 Veterans Day observed
Campus closed - No classes
28 Thanksgiving Holiday - No classes
29 Thanksgiving Holiday - No classes
30 Campus closed - No classes

DEC. 2024

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

16-20 Final Exam Week
20 Last day of classes
21 Final Exams - Saturday classes
Last Saturday class
23-31 Semester Break - No classes
25 Holiday observed
Campus closed

SPRING SEMESTER 2025

JAN. 2025

S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1	New Year's Day Holiday Campus closed - No classes
2-10	Semester Break - No classes
13	Spring Semester Begins
18	First Saturday Class
20	Martin L. King, Jr. Holiday Campus closed - No classes

FEB. 2025

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

17	Presidents' Day Campus closed - No classes

MAR. 2025

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

3-7	Advising Week - Students meet with advisors for Fall class selection & program completion
2	Mid-Term Ends - Saturday classes held
10-14	Spring Break - No classes
15	No Saturday classes
17	Continuing student and veterans registration for Fall 2025 begins
19	New student registration for Fall 2025 begins
28	Campus Conversation Day - No classes

APR. 2025

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

19	No Saturday classes

MAY 2025

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

9-15	Final Exam Week
10	Final Exams - Saturday classes Last Saturday class
15	Last day of classes
16	Commencement - No classes

SUMMER SEMESTER 2025

June 2025

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2 Summer Session begins
19 Juneteenth Independence Day
Campus closed - No classes

July 2025

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

4 Independence Day
Campus closed - No classes
26 Last day of Summer Session

College Information

Pine Technical and Community College Mission, Vision and Values

Mission Statement

Known for innovation and inclusive contributions to strengthen communities, we make college possible for those starting out or starting over. Whether a student seeks a career program, new skills or general education transferable to another college or community, Pine Technical & Community College is an excellent choice.

PTCC Vision

In 2030, the people of East Central Minnesota will first turn to Pine Technical & Community College when they want career education, new skills or general education. More than 1200 FYE will be enrolled in programs; more than 4000 will benefit from training experiences. The college will be the essential regional resource for higher education, bringing dynamic, vibrant academic programming to the communities we serve.

PTCC Values

- Student-focused
- Passionate
- Innovative
- Respectful
- Inclusive
- Transparent

Diversity combines the strength of abilities, cultures/ethnicities, experiences, genders, religions, beliefs and talents each of us brings to Pine Technical & Community College. The concept of diversity is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual.

Inclusion embraces all dimensions of the human experience, from our differences to our similarities, and creates a climate where all feel valued and appreciated, where there is substantive interaction among all.

Accreditation

Pine Technical and Community College is accredited by the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools located at:

The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, Illinois 60604-1413
Phone: 800.621.7440/312.263.0456. Fax: 312.263.7462
info@hlcommission.org

The college was originally accredited in 1977 and has been consistently accredited since that time. Our most recent visit of the HLC evaluation team was in 2018-2019. During this visit/evaluation the college maintained a 10-year accreditation status through the Open Pathways accreditation process. This is the maximum designation awarded.

Pine Technical and Community College Foundation

The Pine Technical and Community College Foundation is a nonprofit 501(c)(3) organization formed to solicit, receive and administer gifts, grants, bequests, and donations. It provides a tax-exempt vehicle for people to donate to the college and thereby provide educational opportunities for Pine Technical and Community College students. Private and corporate contributions are critical to fulfilling the college's mission. Persons or groups desiring to contribute to the Foundation may contact the Foundation Director.

The Foundation was created in 1999 to help the college expand and meet the growing educational and cultural needs of residents and businesses in the Pine area. The Foundation strives to enhance the college's standing as the most important source of postsecondary education and training and continuing education in the region and works with PTCC to expand the relationships it has forged with businesses and the community. The annual Bridging the Dream campaign offers you a share in the success of this important institution. By making a gift to the college, you are helping yourself and your community!

Foundation Mission

The Pine Technical and Community College Foundation is a partner to the college in providing leadership in education in the region. The Foundation will become a collaborator in building programs, services, and facilities that benefit students, faculty, business and industry and the

community. The Foundation will creatively assist and collaborate with faculty, staff, and administration to enhance college life and the College's place in the community.

Foundation Vision

The Pine Technical and Community College Foundation envisions expanded opportunities for students at the College and for those who wish to become students. The Foundation will involve key people at the College and in the region to develop a long-term endowment and programs to encourage and motivate students and faculty. The Foundation will facilitate, through the College, the economic development of the area and improve the region's ability to retain qualified people in the workforce.

Foundation Values

- Students first
- Personal and professional development for staff
- Partnerships with business, industry, agriculture and units of local government

Business and Industry

Pine Innovation Center

Pine Technical and Community College is the home to the Pine Innovation Business Incubator. The incubator supports high-tech and light manufacturing entrepreneurs in the community, and at the same time, gives PTCC students access to internships and practical experience in cutting-edge high-tech industry. PTCC and a body of experts from the region provide consulting services, technical expertise, product evaluation, assistance with marketing and business planning, and much more to start-ups and growing businesses choosing to reside in the incubator while putting down roots.

The Pine Innovation Business Incubator is used to house light manufacturing and technology-based businesses working toward producing innovative products or services. The facility is designed to house one to three start-up companies simultaneously, as well as comfortable meeting spaces. For more information, call Wendy Walberg, Dean of Customized Training Solutions, 320-629-5146.

Customized Training Solutions

Pine Pine Technical and Community College Customized Training Solutions (CTS) department offers a broad range of courses designed for an individual's professional growth and development, as well as education and training tailored to businesses' specific needs. With changing

technologies and changing markets, it is more important than ever to invest in an organization's most important resource – its people.

The PTCC Customized Training Solutions department provides quality workforce training and development to help grow and prosper the business community.

About Customized Training Solutions

PTCC's Customized Training Solutions department serves as the major regional provider of skill-based, short-term courses. Courses are conveniently offered during the day, evening or on weekends. Courses are open-enrollment and cater to business needs.

Many courses are designed to meet an occupational licensing or legal requirement. Since class sizes are smaller, students receive more individual attention and learn through their experiences. Courses are shorter in duration than traditional college credit classes and are delivered to meet the needs of the participant.

Through innovative assessment, delivery, and evaluation, Customized Training Representatives are able to assist organizations with training, by consultation, development, and implementation. Today's workplace is inundated with change as new technologies, processes, and equipment emerge every day. To keep up with these changes, an organization's employees need ongoing training. PTCC provides efficient and effective training with an eye on the bottom line and on developing a company's most important asset — its employees.

"Training has become a strategic investment — not just a cost to be budgeted." - *American Society of Training and Development*

Training Delivery

Courses may be at our CTS building, contracted site, or the main campus of PTCC. Or to make it more cost effective, most training can be held at a business site, so payment is for the training of employees, not commuting time. Also, we arrange training desired schedules, including early morning, evening, or weekend training to accommodate the complex schedules of today's workplace.

Professional Instructors and Consultants

Instructors are licensed professionals experienced in the classroom and the workplace. Training content meets business goals, whether immediate, short-term, or long-term. All training includes hands-on experience, participant involvement, and plenty of time for questions and answers.

Customized for Your Needs

Our experienced staff, instructors, and consultants work in partnership with each customer to ensure every aspect of the training process is tailored to exact requirements of the business: from the development of custom-tailored curriculum to pre-course logistics planning, and post-course evaluation. Classes may be customized to fit the specific needs of each individual organization. Expertise is available in the following core areas:

Workplace Safety
Right-to-Know, Hazard Communication, Blood borne Pathogens, Lockout/Tagout, Confined Space, Personal Protective Equipment, Respiratory Equipment, OSHA10 and OSHA30, AWAIR, Accident/Injury Reduction, Building Contractor Training Annual Review, Bobcat/Excavation Safety Training, Slips-Trips and Falls, and more.

Manufacturing
Blueprint Reading, Welding, Math & Measure, Manufacturing New Hire Bootcamps, Boiler Exam Prep, Pistolsmithing, Gunsmithing, Manufacturing Foundations & Production Technologies Certificate Programs, LEAN Manufacturing, Hand/Power Tool Safety, CNC Machining, IMT Apprenticeship and more.

Information Technology
Windows, Microsoft Office Applications, Web/Internet, Website Development, Web-based Marketing, Software Development & Testing, Network Set-ups, Cyber-Security and more.

Health Education
Nursing Assistant (NA), NA Skills Refresher, NA State Exam, Emergency Medical Technician (EMT), Emergency Medical Responder Initial (EMR), National Recertification for EMT (NCCR), EMR Refresher, BLS CPR, Heartsaver CPR, Infant & Child CPR, AHA Instructor Initial and Refresher, Psychomotor Exam - EMT Refresher, First Aid, Ergonomics, and more.

Management Education
Supervisory Training, Team-building, Human Resource Development, Position Descriptions, Performance Appraisals, Compensation Systems, Employee Handbooks, Policy and Procedure Manuals, Workplace Violence Awareness, Stress Management, Customer Service, Change Management, Sexual Harassment Prevention in the Workplace and more.

Transportation Safety
Motorcycle Safety Training (Basic and Intermediate Rider), Road Guard Certification, Flagger/Traffic Control Training, Defensive Driving, and more.

Child Development/Parenting
Cooperating with Requests, Making a Connection, The Power of Play, Why Do Children Do What They Do?, Logical Consequences, Behavior has meaning. Classes are on-line or in person upon request.

Ed2Go – On-Line Courses

Pine Technical & Community College offers a wide variety of highly interactive, non-credit online courses and career training programs through a partnership with Ed2Go. Study whenever and wherever is best, making it easy to learn and work even with a busy schedule.

Our programs are designed by a team of professionals from each respective field, providing effective web-based learning programs. Instructors/mentors are actively involved in the online learning experience, responding to any questions or concerns, as well as encouraging and motivating to ensure success. Visit https://pine.edu/cts/online-courses/

Electric Utility Professional Development

Pine Technical & Community College is partnering with Collaborative Inc. & the Academy for Utility Line Design Professionals (AULDP) to promote excellence in the design of overhead and underground electric and telecommunication utility lines.

Utility Line Design University is for those individuals seeking professional line design training for certification.

All training programs are delivered over the internet and provide several sample and practice problems. Access is given to each purchased training program for two months, once a registration is complete. Students will take the courses first and then once successfully completed, the corresponding exam is available for registration. A confirmation email with instructions on how to set up a student Star ID and password will follow. It is critical to keep this information.

All mini-courses are pre-recorded and can be accessed on per the student's schedule. Courses can be completed on the student's own time and own pace. Once registration is complete, a unique login is sent to enter the site. Students will earn Professional Development hours (PDH) or CEU's for completion of the mini-course and its corresponding course evaluation. The link to the course evaluation will be emailed to students.

Companies with groups of 3 or more people interested in registering will be given a discount and should contact 320.629.5176 or dianna.abrahamsen@pine.edu for more information.

Admissions to the College

Pine Technical and Community College is committed to a policy of nondiscrimination in employment and educational opportunity. Minnesota State prohibits discrimination and harassment against persons in the terms and conditions of employment, personnel practices, or access to and participation in educational programs, services, and activities on the basis of membership or perceived membership in any of the following protected classes: race, sex (including pregnancy, child birth, and related medical conditions), color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, gender expression, veteran status, familial status, and membership or activity in a local human rights commission. Protected class also includes genetic information for employees.

Ability to Benefit

As of July 1, 2012, students without a high school diploma or a GED may be accepted to the college, but may not be eligible for federal financial aid (See Policy 317 found at: www. pine.edu/about/public-information-and-policies/campus-policies/). Students may be asked to verify high school or GED completion prior to enrolling in courses. PTCC is a pilot school of the Ability to Benefit program.

What is Ability to Benefit?

It is a federal financial aid rule that allows students without a high school diploma (or an equivalent like a GED or home school diploma) to qualify for financial aid if they prove they have the ability to benefit from a college education. Financial aid can help you pay for tuition, books, fees and other educational expenses for college-level classes.

Who is eligible?

You may be eligible if you:

- Do not have a high school diploma or GED
- Are 17 years or older by June 30 of the academic year
- Participate in an eligible career pathway program

What are my options at PTCC?

You can prove you have the ability to benefit from college in one of three ways:

Option 1: Pass an approved test

The ACCUPLACER is the approved Ability to Benefit (ATB) test referred to in Part 3, Subpart A. The approved passing scores on this test are as follows:

Reading Comprehension (233), Writing (235), and Arithmetic (230). A student must attain passing scores on all three tests in order to be admitted under the provision in Part 3, Subpart A. At the time of admission into a college and into an eligible career pathways program, students admitted under this provision must be informed in writing that they may apply and possibly qualify for federal financial aid.

Option 2: Complete six college-level credits

Option 3: Enroll in an eligible career pathway

This is a great option for students interested in an eligible career pathway who would like additional support in career and academic planning, introduction to college processes, and who have the academic potential and career interests to be successful.

Eligible PTCC career programs:

- Emergency Medical Services Professional
- Network Administration Certificate
- Nursing Assistant and Trained Medication Aid
- Practical Nursing Diploma
- Precision Machining Certificate
- Welding Technology Diploma

Immunization

Minnesota Law (MS 135A.14) requires that all students born after 1956 and who graduated from high school before 1997 and enroll in a public or private post-secondary school in Minnesota, including Pine Technical and Community College, must provide evidence of immunization for measles, rubella, mumps, diphtheria, and tetanus. Immunization forms and additional information are available from the Admissions/Student Services Office or at www.pine.edu.

Assessment for Course Placement

Pine Technical and Community College's course placement process determines a student's readiness for reading, writing, and mathematics courses. It is used to assist a student with the selection of appropriate courses to help assure a student's success upon entering PTCC. All degree-seeking students are required to satisfy course placement.

High School Diploma

To satisfy course placement requirements using high school GPA, high school transcripts within the last 10 years will be reviewed for the following:

- College Level Reading and Writing Placement
  - 2.6 cumulative GPA
- College Level Mathematics Placement
  - 2.8 cumulative GPA

SAT, ACT or MCA Scores

To satisfy course placement requirements using SAT, ACT or MCA score official assessment score reports will be reviewed for the following:

SAT

- College Level Reading and Writing Placement
  - 480 or 440-479 with 2.5 HS GPA (within last 10 years)
- College Level Mathematics Placement
  - 530 or 520-529 with 2.7 HS GPA (within last 10 years)

ACT

- College Level Reading and Writing Placement
  - 21 or 19-20 with 2.5 HS GPA (within last 10 years)
- College Level Mathematics Placement
  - 22 or 20-21 with 2.7 HS GPA (within last 10 years)

MCA

- College Level Reading and Writing Placement
  - 1047 or 1042-1046 with 2.5 HS GPA (within last 10 years)
- College Level Mathematics Placement
  - 1158 or 1152-1157 with 2.7 HS GPA (within last 10 years)

* SAT, ACT, and MCA scores are valid for five years

Guided Self Placement

If students do not have valid high school GPA or other score reports mentioned above, students may choose to use the self-guided placement process to determine course placement. Students should review the Guided Self Placement resources with an admissions advisor or academic advisor to determine placement using this method.

Accuplacer Assessment

The Next Generation Accuplacer Assessment will be used if the above scores do not meet the college level benchmarks to demonstrate academic

readiness to enroll in college-level courses. The Accuplacer is a placement test that assesses skill levels in reading and mathematics. Test results are required for all students and used to determine the appropriate course placement to promote student success in college.

Multiple Measures for Course Placement

PTCC implemented Multiple Measures for Course Placement (MMCP) beginning in Fall 2020, in compliance with MinnState board policy 3.3. The new MMCP framework incorporates the use of high school GPA when determining placement into college level courses. This means that we will now consider a student's overall high school GPA in conjunction with a placement assessment (ACT, MCA, SAT, Accuplacer) to determine if they are eligible to take a college level course.

Post-Secondary Enrollment Option

Program Overview

The Post-Secondary Enrollment Options (PSEO) Program is the program established by Minnesota State Statutes 124D.09 to "promote rigorous educational pursuits and provide a wider variety of options for students." Through PSEO, 10th, 11th and 12th grade high school students can get a jump start on their college education, explore future careers, and save money earning college credit by taking college courses while they are in still in high school through Minnesota's PSEO program. PSEO courses may also fulfill high school course requirements and count toward a high school diploma. Pine Technical and Community College gladly participates in the PSEO program and offers this wonderful opportunity to our high school students. Pine Technical and Community College adheres to Minnesota State PSEO Procedure 3.5.1 "Postsecondary Enrollment Options (PSEO) Program" which can be found at https://www.minnstate.edu/board/procedure/305p1.html.

Student Eligibility

The PSEO program allows high school students to take courses on a college or university campus, at their high school, or online taught by college or university faculty members. To be eligible to take PSEO courses, students must meet the following eligibility criteria:

Seniors

- Be in the upper one-half of class or have a test score at or above the 50th percentile on any nationally standardized, norm-referenced test such, or
- Have a high school GPA of 2.5 or higher, and

- Meet course placement requirements as determined by assessment score (such as ACCUPLACER, ACT, MCA)

Juniors

- Be in the upper one-third of class or have a test score at or above the 70th percentile on any nationally standardized, norm-referenced test, or
- Have a high school GPA of 3.0 or higher for general education courses or a GPA of 2.5 or higher for career and technical education courses, and
- Meet course placement requirements as determined by assessment score (such as ACCUPLACER, ACT, MCA)

Sophomores

- Rank in the upper one-tenth of class, or
- attain a score at or above the 90th percentile on a nationally standardized, norm-referenced test, or
- have a high school grade point average of 3.0 or higher for liberal arts and CTE courses, and
- have a favorable recommendation from a designated high school official

Pine Technical & Community College places the onus of verifying the enrollment eligibility of students taking its courses on the partner high school.

Sophomore Career and Technical Course Options

10th-Graders (PSEO): Any public, nonpublic, homeschool, or American Indian-controlled tribal contract or grant student classified as a 10th-grader who meets residency requirements outlined in the Residency Guidelines section of the Minnesota Department of Education PSEO Reference Guide. These students may enroll in the following during the first term of enrollment:

1. One Career or Technical Education (CTE) course as identified by a Minnesota state college or university on the postsecondary campus when MDE makes payment directly to the postsecondary institution. One of the following must apply:
    a. The student must have received a passing score (proficiency level of “meets or exceeds”) on the 8th grade Minnesota Comprehensive Assessment (MCA) in reading, or

b. If the student did not take the 8th grade MCA, another reading assessment can be substituted if accepted by the enrolling postsecondary institution. Note: Eligible students can access the Alternate Eligibility Options Policy, for 10th grade students with a disability who wish to participate in Career and Technical Education courses through the PSEO Program.

Additionally, the student must also meet the specific course requirements and prerequisites of the CTE course in which he/she wishes to enroll. If the student receives a grade of "C" or better in the first CTE course, the student is allowed to take additional CTE courses at the same institution.

General Education Course Options

The PSEO program also allows high school students to take college courses on a college or university campus, at their high school or on-line taught by college or university faculty members. To be eligible to take PSEO courses at a Minnesota State Colleges and Universities, students must meet eligibility requirements outlined in the "Student Eligibility" section.

Eligible students will also need to meet the assessment prerequisites set for the course that must be met by all students taking the course.

Concurrent Enrollment

Many high schools offer PSEO courses through concurrent enrollment, allowing students to take college courses taught by highly qualified high school teachers without having to leave the high school. Under certain circumstances, students in 9th or 10th grade may also be allowed to take concurrent enrollment courses.

PSEO Admissions Process

A student applying as a PSEO student must provide the following information to the K-12 Partnerships Department:

- Pine Technical and Community College online Application for Admission
- Completed Minnesota Department of Education PSEO Program Notice of Student Registration Form (NOSR) form signed by student, high school official and parent/guardian if student is under 18
- Current high school transcript
- Documentation that verifies the student meets course placement requirements
- If required, schedule Accuplacer Assessment to determine if the student meets college readiness or other course prerequisite requirements

Courses and Credits

PSEO students should select courses that fulfill courses required for high school graduation and share that schedule with your high school counselor.

School districts must allow students to enroll in high school courses in addition to any number of postsecondary courses. High school students are always eligible to enroll in high school courses in addition to any number of postsecondary courses as long as the student has at least one free period at the high school. Refer to the Participation Limits section for additional information. (See Minnesota Department of Education "PSEO Reference Guide" for details.)

If you plan to transfer PSEO credits to another college after high school graduation request an official transcript on the PTCC website.

PSEO students shall not register for developmental courses (college courses numbered below 1000) unless the student is enrolled through the PSEO State-Approved Early/Middle College Program (Minnesota Statutes, section 124D.09, subdivision 9b).

PSEO students will register on assigned registration days according to total credits earned. Students must complete the MDE's NOSR form each semester, which must be signed by a high school official and parent (if student is under 18). This form must be submitted to the K-12 Partnership Coordinator.

Post Secondary Enrollment Option (PSEO) students are allowed to sign and pick up their required books and a reasonable amount of required supplies that will be used for their courses free to them if the MDE NOSR form has been filed with the K-12 Partnership Coordinator.

Textbooks are the property of the local school sponsoring the PSEO student. At the end of the semester, books must be returned to the sponsoring school if they are an ECMECC Partner High School. Homeschooled and all other PSEO students from Minnesota must return their books to the Campus Store. Failure to return your books at the end of the semester will cause the student/parent to be held financially responsible for the unreturned books.

PSEO students are not eligible for financial aid, PTCC scholarships, or work-study.

PSEO Academic Standard for GPA and Course Completion

Once admitted to the college, PSEO students are required to meet Satisfactory Academic Progress requirements in order to maintain eligibility.

PSEO Admissions Appeal Process

PSEO applicants who do not meet the admissions requirements and are denied acceptance have the right to appeal the decision to the college using the Student Petition.

What constitutes an Appeal?

An appeal must include:

- A statement by the student in writing defining how they can be academically successful as a PSEO student at PTCC.
- A letter of recommendation from the high school counselor or principal stating the student can be academically successful at PTCC and that the high school supports the student's admission to the college.

The appeal must be submitted to the Dean of Student Affairs. Appeals received after this term starts will not be considered for the current semester. Notification of the decision will be sent to the student and the high school counselor/principal.

Credit for Prior Learning (AP and IB Options)

Advanced Placement (AP) or International Baccalaureate (IB) courses are offered at many high schools and provide a rigorous curriculum that prepares students to take college level courses. Students who achieve a 3 or higher on an Advanced Placement test can have that score evaluated by a college or university for a college credit. Students who attain an International Baccalaureate (IB) diploma shall be granted six (6) lower division course credits for scores of 4 or higher on each Higher Level IB examinations and two (2) lower division course credits for scores of 4 or higher on each Standard Level IB examination will be awarded college credit at any Minnesota State college or university.

Submit the following completed forms to the Records office:

- PTCC application
- MN Department of Education enrollment form
- PSEO Guidance Counselor/ Home School Parent Form
- Have your school counselor or home school coordinator send your high school transcript directly to:

  PTCC RECORDS*
  Pine Technical and Community College
  900 Fourth Street SE, Pine City, MN 55063
- Any ACT, MCA or other assessment scores.

**Or upload to the PTCC High School Transcripts Uploader in the PTCC Student Forms site.*

Admission of Transfer Students

Transfer of Credit

Students transferring credits from another Minnesota State institution will have their credits transferred in through e-transcripts and do not need to provide an official copy of their transcript. Students requesting transfer of credits from a non-Minnesota State college or university must submit an official copy of that college's (host college) transcript for evaluation by the Records department. Courses are evaluated with information from the host college's course descriptions and/or catalog. Transfer credits are not used in calculating PTCC's grade point average, but are considered in the completion percentage when applied to program majors. Only courses with grades of "C" or above within specific program majors may be considered. PTCC will accept Minnesota Transfer Curriculum (MnTC) courses with grades of "D" or above for transfer for completion of the entire MnTC. The Records department will notify students of final approval for acceptance of credits, and accepted credits will appear on the student's official transcript and their interactive degree audit report (DARS). Current information regarding the Minnesota Transfer Curriculum can be found on the PTCC website at http://www.pine.edu/academics/transfer.

Pine Technical and Community College considers courses for transfer from colleges and universities that have been accredited by their regional associations. Transfer credit also may be considered for courses taken at institutions that lack regional accreditation but have been accredited by specialized agencies or at institutions outside the United States that have been chartered or authorized by their national governments. For PTCC's transfer procedure, more about specific types of courses that transfer into PTCC (general education courses, technical/occupational courses, developmental courses, etc.), information about Transfer Maximum, articulation agreements and more, visit the Transfer Information page at www.pine.edu/academics/transfer.

Students have the right to appeal a transfer decision and can do so by submitting a Student Petition Form available at https://pine.edu/student-forms.

Most recent transfer information can be found at http://www.pine.edu/academics/transfer. Students are encouraged to utilize Transferology as a free and quick tool to determine transferability of courses while waiting for formal transfer evaluation at www.transferology.com.

Auditing

Non-credit auditing is available to individuals on a limited basis, depending on class size, at the same cost as a credit-seeking student.

Audits must be requested no later than the fifth day of the term on the form provided by the Registrar.

Non-Degree Seeking (Visiting) Students

Students may attend PTCC on a part-time basis in any program area. However, degree-seeking students have enrollment priority if space is limited. Students taking one to eight credits must meet the requirements for the specific courses. Students taking more than eight credits or who intend to complete a certificate, diploma or degree are required to complete the entire admissions process, including assessments and orientation. Students attending other Minnesota State institutions may register online for courses at PTCC. Dates for registration can be found on the Pine Technical and Community College's website.

Admission of English as a Second Language and Other Language Learners

It is the policy of Pine Technical and Community College to provide effective access to all students, including those with limited English proficiency. All students entering Pine Technical and Community College will be assessed with the Minnesota State approved assessment tool (see policy 300 Rev 6). Students whose first language is not English will be advised to take the ESL version of the Minnesota State-approved assessment tool.

Registration/Official Enrollment

Registration

All students register for classes online through e-services using their STAR ID. Students are financially responsible for all tuition and fees associated to courses they register for.

Grade and Credit System

Pine Technical and Community College has adopted the following standards when awarding grades and calculating grade point average.

Policy: The marking system in tabular form, which may include grade shades (plus and minus) as needed, is as follows:

A – Superior Achievement – 4 Grade Points
B – Above Average Achievement – 3 Grade Points
C – Average Achievement – 2 Grade Points
D – Below Average Achievement – 1 Grade Point
F – Inadequate Achievement – 0 Grade Point

Note: The quality points for purposes of computing GPA is as follows:

Grade = Points

A	=	4.00	C	=	2.00
A-	=	3.67	C-	=	1.67
B+	=	3.33	D+	=	1.33
B	=	3.00	D	=	1.00
B-	=	2.67	D-	=	0.66
C+	=	2.33	F	=	0.00
			FN	=	0.00

Cumulative Grade Point Average (GPA): A student's GPA is the quotient obtained by dividing the total number of quality points earned by the total number of semester credit hours attempted. The GPA is computed at the end of each semester and is reported with the grades to the student. All grades "A" through "F" are utilized in determining the student's grade point average for the term and for the overall GPA (all PTCC coursework.)

Note: Courses transferring from other institutions are not computed in the GPA. (Some programs include transfer credits in major GPA calculations.)

NC – No Credit: The notation of "NC" is assigned for unsatisfactory achievement of established outcomes (equivalent to below a "C") in a course where the satisfactory grade is "P". This grade is not calculated in the GPA but counts toward credits attempted.

P – Pass: The grade of "P" is issued for work that is judged average ("C" or above). Suitable for transfer, it is not computed in GPA, but counts toward credit completion.

I – Incomplete: The grade of incomplete "I" is assigned at the discretion of the instructor only in exceptional circumstances and is a temporary grade. An "I" grade is recorded as an "F" grade by the Registrar at the end of the eighth week of the next term (not including summer session) if requirements have not been satisfactorily met. The faculty member has the option to set an earlier completion date.

FN – F Never-Attended: The grade of "FN" is assigned by the instructor if the student has not attended any sessions of class. The grade is recorded the second week of the semester and students earning the "FN" will not have financial aid applied to their accounts.

AU – Audit: The notation of "AU" is given for a credit course in which the student elects to take the course without credit. Audit courses do not apply toward GPA, credit completion, and/or graduation requirements. Audit enrollment is dependent upon available seats and instructor's approval.

W – Withdrawal: Withdrawal from a course must be declared after the fifth day of the semester, but not later than the 80% point of the class.

Under special circumstances, the college may withdraw a student from a course. This action will take place no later than the deadline for student initiated withdrawal and the student will be notified of the action. A "W" is recorded for the grade on the student's permanent record and is not computed in the GPA but factors into credit completion.

Z – In-Progress: The notation of "Z" denotes a course in progress. The instructor submits the appropriate letter grades for each "Z" upon completion of the course.

R – Repeat: The notation of "R" is added to a standard letter grade for a credit course retaken. The course grades remain on the transcript with the grade calculations suspended for the previous grade(s), thus it is not computed in the GPA. All repeated courses are counted in the cumulative completion rate. Any course may be repeated and no limit is placed on the number of times a course may be repeated. A student may not be permitted to receive financial aid for more than one repetition of a previously passed course. For repeated courses, the higher of the earned grades is recorded in the student's permanent record.

CR – Credit by Examination or Experiential Credit: The grade "CR" is given for a credit course in which a student satisfies the course requirements through testing based on standard class assessments. Not all courses are eligible for Credit by Examination, such as developmental courses. Availability of this option is determined by the instructor. The grade of "CR" is not computed in the GPA.

EX – Experiential and Non-Academic Learning Credit: The grade of "EX" is given for credit courses in which a student satisfies the course requirements through documentation of prior learning. Not all courses are eligible for Experiential Learning credit, such as developmental education courses. Availability of this option is determined by the instructor. The grade of "EX" is not computed in the GPA or credit completion ratio.

Attendance Policy

Students are expected to regularly attend classes in which they are enrolled. Instructors are expected to clearly state attendance/participation expectations and treatment of absences on their course syllabi, and students are expected to meet these expectations. Students who do not officially drop or withdraw from their class(es) may be assigned a failure for non-attendance grade (FN). Students should not assume that their instructors have dropped them from the class roster due to lack of attendance and may not withdraw from a class simply by non-attendance. The College reserves the right to drop or withdraw a student who has neither attended the first class session nor been in contact with the instructor about the absence if it is in the best interest of the College. The College will default to the

syllabus statements when conflicts related to attendance/participation occur between faculty and the student. Simply logging in for a distance/internet class, per financial aid regulations, does not qualify as participation. Active participation with an academic relevant task is required for attendance.

Satisfactory Academic Progress (SAP)

Part 1: Purpose. Pine Technical and Community College, the Minnesota State Colleges and Universities and Federal and State law require that a student make satisfactory academic progress (SAP) towards a degree, diploma or certificate to attend the College and remain eligible for financial aid.

Part 2: Definitions. For the purposes of this procedure only, the following words and terms are defined as follows.

Academic Plan

The plan developed by the college or university for a student that stipulates the minimum number of credits the student must earn in a term, and/or the minimum term grade point average the student must achieve to make satisfactory academic progress in order to be reinstated to full financial aid eligibility.

Maximum time frame

The maximum number of cumulative attempted credits within the academic program which a student must complete.

Probation status

The status of a student who has successfully appealed a satisfactory academic progress suspension and regained financial aid eligibility for one evaluation period, after which the student must either meet the college or university cumulative GPA and completion percentage standards, or successfully complete the requirements of an academic plan developed for that student by the college or university.

Qualitative measure

The Grade Point Average (GPA) a student must maintain in order to retain financial aid eligibility.

Quantitative measure

The pace at which a student must progress through a program in order to retain financial aid eligibility.

Required completion percentage

The percentage of cumulative attempted credits that a student must successfully complete in order to retain financial aid eligibility.

Warning status

The status of a student who has been warned that financial aid eligibility is at risk and will continue for one evaluation period despite a determination

that the student has not met the college or university grade point average standard, or completion percentage standard, or both.

Part 3: Policy. The standards defined below are cumulative and include all periods of enrollment, whether or not a student received financial aid. Students bear primary responsibility for their own academic progress and for seeking assistance when experiencing academic difficulty. Counseling, tutoring, mentoring, special programs and outside referrals are all available.

1. **Qualitative Measure:**
   At the end of each evaluation period, a cumulative Grade Point Average (GPA) of 2.0 or higher is required to maintain satisfactory academic progress. Grades of A, B C, D, F, and FN shall be included in the GPA calculation.
2. **Quantitative Measure:**
   A. **Required Completion Percentage:** At the end of each evaluation period, completion of at least 67% of the cumulative credits attempted is required to maintain satisfactory academic progress. Grades of I, NC, W, FN and F shall be treated as credits attempted but not successfully completed. Z grades or blank grades shall also be treated as credits attempted but not completed. Audited courses are not counted in the completion rate.
   B. **Maximum Time Frame:** For Financial Aid purposes, the maximum number of credits a student may earn per academic award is 150% of the published credit length of the program major. At the point a student registers for credits beyond the 150% limit, he/she will be considered not making satisfactory progress. Maximum time frame for students pursuing double majors, students enrolled in consecutive programs, or for students with a previous degree may be based on specific program requirements.
3. **Evaluation Period:**
   Evaluation will be conducted at the end of all terms – Fall, Spring, Summer
4. **Failure to meet standards**
   A. **Financial Aid Warning**
      1. *Warning status:* If at the end of the evaluation period a student has not met either the grade point average standard or required completion percentage standard, the college will allow the student to retain his or her financial aid eligibility in a warning status for one evaluation period.

2. *Reinstatement of students on warning status:* If at the end of the evaluation period a student who has been on warning status has met both cumulative grade point average and completion percentage status, the college will end the student's warning status.

B. Financial Aid Suspension of students on warning status: If at the end of the warning period a student who has been on warning status has not met both cumulative grade point average and completion percentage standards, the college shall suspend the student immediately upon completion of the evaluation.

C. Financial Aid Suspension for other reasons:

1. *Suspension for maximum time frame failure:* If at the end of the evaluation period a student has failed to meet the institution's standard for measurement of maximum time frame (150% of credits in that program), the college will suspend the student from financial aid eligibility immediately upon completion of the evaluation.
2. *Suspension for extraordinary circumstances:* Students may immediately be suspended from financial aid eligibility including but not limited to:
   a) previously suspended and reinstated students whose academic performance falls below acceptable standards during a subsequent term;
   b) students who register for, receive financial aid and do not attend any classes; and
   c) students whose attendance patterns appear to abuse the receipt of financial aid.
3. *Suspension for inability to meet program requirements within the maximum time frame*: If at the end of any evaluation period PTCC determines that it is not possible for a student to raise his/her GPA or course completion percentage to meet PTCC's standards before the student would reach the end of the program for which he/she is receiving financial aid, PTCC shall suspend the student from financial aid eligibility immediately.

5. Appeals and Probationary Status

A. Appeals: Students shall be permitted to appeal their financial aid suspension status based on unusual or extenuating circumstances. Extenuating circumstances include but are not limited to death of a relative, illness, hospitalization or injury to the student, incarceration, and domestic issues.

1. *The student shall submit, as part of their appeal, information which shall include:* a) why the student failed to make satisfactory academic progress b) what has changed in the student's situation that would allow the student to meet satisfactory academic progress at the end of the next evaluation period c) define academic and personal goals d) how these goals will be met the upcoming semester.

   Student must initiate the appeal by completing and submitting the SAP Appeal form. Appeals must be submitted in writing to the PTCC Student Services Office in Room 10 by the deadline printed in the SAP suspension notification.
2. *An appeal may be approved only if the PTCC Satisfactory Academic Progress Committee:*
   a. Has determined that the student should be able to meet SAP standards at the end of the next evaluation period; or
   b. Develops an academic plan with the student that, if followed, will ensure the student is able to meet SAP standards by a specific point in time. An academic plan may extend for more than one term. If the academic plan includes term standards of GPA and percentage of completion, they must be higher than cumulative standards.

      The initial consideration of appeals will be completed by the Satisfactory Academic Progress committee. Secondary appeals will be completed by the Dean of Student Affairs.

B. Probationary Status: A student who has successfully appealed shall be placed on financial aid probation for one evaluation period. If at the end of the evaluation period the student has:

1. Met the college's cumulative grade point average (2.0) and completion percentage (67%) standards, the student shall be returned to good standing.
2. Has not met the college's cumulative grade point average and completion percentage standards, but has met the conditions specified in her or his academic plan, the student will regain financial aid eligibility subject to the terms of the student's academic plan for a subsequent evaluation period, or

3. Has not met the college's cumulative grade point average and completion percentage standards and has also not met the conditions specified in the student's academic plan, the student must be re-suspended immediately upon completion of the evaluation.

6. Notification of Status and Appeal Results

A. Status: The Dean of Student Success or designee shall notify a student in writing (no email on record) any time the student is placed in a warning, suspension or probationary status.

1. A student placed in warning status shall be informed of the conditions of the warning status.
2. A student placed in a suspension status shall be informed of his/her right to appeal the suspension.
3. A student placed in probationary status shall be informed of the conditions he/she is expected to meet and the academic plan the student is expected to complete to retain financial aid eligibility at the end of the next evaluation period.

B. Appeals: The College shall notify a student in writing (no email on record) of the results of all appeals.

1. The SAP Appeals Committee will make a decision on the merits of the appeal and will notify students in writing (letter or email) with the results of the appeal.
2. Notifications of approved appeals shall include the conditions under which the appeal is approved and any conditions to retain eligibility for registration and financial aid.
3. Notification of denied appeals shall describe the reason(s) for the denial and the College's process for appealing the denial.

7. Reinstatement

Students may regain their eligibility only through the appeal process or when they are again meeting the satisfactory academic progress grade point average (cumulative 2.0) and completion percentage (67%) standards. Neither paying for their own courses, nor sitting out a period of time in and of itself is sufficient to re-establish financial aid eligibility.

8. Treatment of grades and completion rates for specific grades/ credits

A. Academic Forgiveness: Credits for which students have been granted academic forgiveness shall be included in both the GPA and completion percentage measurement and maximum time frame calculation.

B. **Audited Course:** Audited courses are not aid eligible and are not included in any satisfactory academic progress measurements.
C. **Changes in Majors, Multiple Majors, or Pursuit of a Second Degree:** Credits attempted and earned under a previous major, multiple majors, or in pursuit of a second degree are included in both cumulative qualitative and cumulative quantitative measures. Changes in major, multiple majors or the pursuit of a second degree may be factored into Satisfactory Academic Progress Appeals.
D. **Consortium credits:** Credits for which financial aid is received under a consortium agreement shall be included in both the GPA and completion percentage measurement as well as maximum time-frame completion
E. **Developmental/Remedial courses:** Developmental credits shall be included in the GPA and completion percentage measurement of satisfactory academic progress. Up to 30 developmental credits shall be excluded from maximum time-frame calculations.
F. **Grade Changes:** Any grade changes may have an impact on both qualitative and quantitative SAP measures and to account for this impact, the Registrar re-runs the SAP process for students with grade changes.
G. **Incomplete Grades:** The mark of "I" (incomplete) is assigned temporarily at the discretion of the instructor when extenuating and unforeseen circumstances prevent course completion. An "I" grade will automatically become an "F" grade at the end of the next term (not including summer sessions) if requirements to complete coursework have not been satisfactorily met. A grade of "I" is not included when calculating GPA or earned credits. Thus, it does not impact GPA but does negatively impact earned credits, and therefore negatively impacts the student's percentage of completion. Incomplete grades when updated, will be handled in the same manner as Grade Changes with the Registrar re-running the SAP process for impacted students.
H. **Repeat Credits:** Repeat credits are awarded when a student repeats a course in order to improve a grade. The college will determine, based on its Grade Policy, which grade will be calculated within the GPA. All repeated credits are included in the percent of completion and maximum time frame calculations.

I. **Transfer credits:** Transfer credits accepted by the college and applied to the student's program requirements shall be counted as credits attempted and completed for calculation of cumulative completion percentage. Grades associated with these credits shall not be included in calculating cumulative GPA.

J. **Withdrawal Grades:** The notation of "W" (withdrawal) is assigned when a student withdraws from a course after the drop period. It is not included when calculating grade point average or earned credits. Thus, it does not impact GPA but does negatively impact earned credits and, therefore, negatively impacts the student's percentage of completion.

Adding Courses

It is the student's responsibility to add courses from eServices found on the website at: http://www.pine.edu in the Current Students drop down menu.

Adding courses or other revisions to a schedule can only be done during the open registration window and add/drop period. The period for adding/dropping a class expires after the fifth day of the semester for full term courses, or the second day of a reduced term course. Adding courses after the add/drop period can only be done with approval from faculty (and the Dean of Student Success.) Adding courses will affect the tuition and fees due and may impact financial aid. It is the student's responsibility to manage their finances accordingly. Please see the Business Services section for more information.

Dropping Courses

Students have the opportunity to attend one class session for each registered credit-based course without financial obligation in accordance with Minnesota State policy 5.12. Students are financially responsible for any classes dropped after the fifth business day of the term, or one business day after the first class session, whichever is later. For credit courses less than three weeks in length, the no obligation drop period is one business day after the first course session.

Withdrawing from a Course

A student may withdraw from a course after the add/drop period and prior to 80% of the semester or instructional days; however, the student is responsible for all tuition and fees associated with the course. The last date to withdraw for individual courses can be found in the course schedule within eServices. Students may withdraw from courses via eServices and are

strongly encouraged to meet with an advisor prior to withdrawing. Students withdrawing from a single course (after the add/drop period listed above) are not eligible for a refund and will receive a grade of W. A withdrawal (W) on the transcript is not computed in the GPA, but factors into credit completion. Withdrawing from a course can impact financial aid. It is the student's responsibility to manage their finances accordingly.

Withdrawing from all Courses

Students wishing to completely withdraw from the college can do so via eServices. Students should consult with an advisor prior to a full withdraw to ensure all considerations and financial transactions are complete. Students who totally withdraw from the College may be eligible for a refund as defined below. When students do not officially withdraw, they will be liable for all tuition and fees associated with the courses. Business Services will determine if a refund is appropriate and to whom the refund should be distributed. Questions about refunds should be directed to Business Services.

Fall and Spring Terms: Total Withdrawal from College

Refund period

1st through 5th class day of the term	100%
6th through 10th class day of the term	75%
11th through 15th class day of the term	50%
16th through 20th class day of the term	25%
After 20th class day of the term	0%

Summer Term: Total Withdrawal from College

Refund Period

1st through 5th class day of the term	100%
6th through 10th class day of the term	50%
After the 10th class day of the term	0%

Name and Address Change

For purposes of official college mailings and emergency situations, it is expected that all students report changes of address, telephone number, name change, or any other revision from the student's original application information online via eServices. Name changes may require copies of legal documentation. Students can change their name and address on the "eServices" site at http://www.pine.edu/student-forms/ or in person in the Student Services or Records Office.

Tuition and Fee Information

Per MinnState policy tuition is due fifteen days prior to the start of the term. For registrations after the tuition due date, payment is due within one week.

Tuition statements are not mailed to students. Students can access their account or make payments online through eServices on the college website at www.pine.edu. A past-due status on a student account will prevent the student from registering.

A student incurs a financial responsibility by registering for classes. If the student decides not to attend, **it is the responsibility of the student** to drop their classes. It is accessed the same way as student registration. If a student decides not to attend, they should not rely on the "registration cancellation for non-payment" process as a way to drop their classes.

For the Financial Aid Office to determine a student's financial need, we must first establish the costs associated with attending Pine Technical & Community College. Cost of attendance can be found online at www.pine.edu/paying-for-college/cost-of-attendance. All budget items shown are for nine months and attending with 15+ credits per term. Students attending less than full-time are eligible for financial aid; however, budget, and maximum awards may be adjusted proportionately for less than full-time attendance. ("Full-time" is 12+ credits per term.)

Tuition and Fee Due Dates

Pine Technical & Community College shall follow the tuition and fees payment due date framework as authorized by system procedure. The College shall drop all courses for students who have not met the minimum payment requirement, do not have a financial aid deferment, or have not established a payment plan. An extension of the payment due date must be granted to students who have filed and are awaiting approved financial aid from federal, stare or other third-party sources.

The College shall inform a student that has received a financial aid deferment that they will remain registered and financially obligated for the tuition and fees even if they do not receive financial aid.

The president or designee may grant short-term tuition and fee payment deferrals in cases where, due to exceptional circumstances, a student needs additional time to arrange third-party financing or otherwise satisfy a tuition and fee balance due.

Nelnet

The College works with Nelnet to provide our students with a payment plan option. The payment plan can be accessed within e-services, under *Bills and Payments*. You may enroll in a payment plan with Nelnet, a third-party

organization, and stagger your tuition payments for a more manageable payment arrangement over the course of a term.

Refunds for Dropped Courses

Students may attend at least one class session for each registered, credit-based course without obligation. Refunds for courses dropped by the established deadline will be issued as authorized by the system procedure on refunds.

Students are financially responsible for tuition and fees if withdrawing from a course after the established deadline to drop courses. Students may petition the college to apply the amount of the tuition and fees from a course withdrawal to the cost of an added course for the current academic term.

Appeal For Tuition/Fees Refund

Students requesting refunds or other financial adjustments after a course has begun must file a petition with the Petition Committee. Any tuition/fees refund will be recommended by the Dean of Student Success based only on the following criteria:

- Student injury or illness requiring extensive hospital and/or convalescent care. (A doctor's statement may be required.)
- Extenuating circumstances or natural disaster involving a family/ personal emergency which must be documented.
- Military duty (letter of assignment or notice of recall is required).

The Chief Financial Officer and President of the college must review all petitions where a tuition/fee refund is recommended. Petition forms are available on PTCC's website.

*In the case of illness or injury, a family member is defined as the spouse, minor or dependant children/stepchildren/foster children (including wards and children for whom the student is legal guardian), or parent/ stepparent living in the same household as the student.

**In the case of death, a family member is defined as the spouse or domestic partner, the parents and grandparents of the spouse, the parents/ stepparents, grandparents, guardian, children, grandchildren, brothers, sisters, wards, or stepchildren of the student.

Financial aid is based on the number of registered and eligible credits. If a tuition appeal is approved, a student's financial aid may be reduced, which would require the student to repay a portion of their financial aid. Students need to contact the Financial Aid office before applying for a tuition refund to determine if their aid package will be impacted.

Cancellation of Classes

There are times when classes may be canceled as a semester course offering. Many factors are considered before a class is canceled. Three major factors are:

- Instructor availability. Sometimes it is necessary to cancel a class because a qualified instructor is not available.
- Low enrollment. The general rule is that a class may be cancelled if it has less than 50% of its capacity registered.
- Room/time conflicts. Class changes or additions may trigger a need to cancel or move certain classes.

Every effort will be made to minimize the frequency of cancellations. PTCC students affected by any cancellation of classes will be notified by a PTCC representative. Alternative classes will be recommended by PTCC staff/faculty for program completion.

Classification of Students

Enrollment Status for Financial Aid

For reporting purposes, students must be enrolled, in attendance, and maintaining Satisfactory Academic Progress (SAP) in order to receive financial aid. SAP is defined as having a 2.0 cumulative GPA and 67% completion rate of all attempted courses. For purposes of determining financial aid eligibility, the following enrollment guidelines will be used:

12 credits or more/semester: Full Time
9-11 credits/semester: 3/4 Time
6-8 credits/semester: 1/2 Time
1-5 credits/semester: less than 1/2 Time

Students are not required to take a minimum number of credits each semester. However, to make progress toward the completion of a 60-credit associate degree or diploma within a two-year time frame, students must complete an average of 15 credits each semester. Students planning to take more than 18 credits in fall, spring, or summer semester must obtain approval from the Dean of Student Success and/or the Registrar.

Graduation Requirements

To receive a degree, diploma, or certificate, all required courses in the program major must be completed, including the prescribed general education courses, at a cumulative GPA of 2.00 or better on a 4.00 grading scale. For a transcript to reflect program completion or graduation, students are required to fulfill all financial obligation to the college and complete a graduation application.

Note: Students are subject to the requirements in their program in effect at the time of their enrollment. **When enrollment has been stopped out for one year,** the student is subject to the degree, diploma, or certificate requirements as stated in their program that is current at the time of re-enrollment.

Academic Honors

Students achieving academic excellence will be eligible for several awards: inclusion on the President's List, Dean's List, or Notable Achievement List on a semester-by-semester basis, and receipt of Honors, High Honors, or the President's Honor Award upon graduation.

The President's, Dean's, and Notable Achievement lists will be compiled and awarded twice annually, once in Fall semester and once in Spring semester.

Students who meet the following criteria will be included on the President's List:

- Current enrollment at PTCC with a declared major as a full-time student (12 or more credits).
- A GPA for the semester of 4.00.
- Students will be eligible for each semester in which they are enrolled in a declared major.
- Courses taken on a pass/no-credit basis will be used to calculate full-time status but not GPA.

Students who meet the following criteria will be included on the Dean's List:

- Current enrollment at PTCC with a declared major as a full-time student (12 or more credits).
- A GPA for the semester of 3.00-3.99.
- Students will be eligible for each semester in which they are enrolled in a declared major.
- Courses taken on a pass/no-credit basis will be used to calculate full-time status but not GPA.

Students who meet the following criteria will be included on the Notable Achievement List:

- Current enrollment at PTCC with a declared major as a part-time student (registered for 6-11 credits).
- A GPA for the semester of 3.50 or above.
- Students will be eligible for each semester in which they are enrolled in a declared major.
- Courses taken on a pass/no-credit basis will be used to calculate part-time status but not GPA.

Students who meet the following criteria will be recognized during spring commencement ceremonies:

The Summa Cum Laude Award will be presented to students who are receiving a diploma or Associate's degree and have maintained an overall cumulative GPA of 4.00 throughout their entire study at Pine Technical and Community College. These students will wear a gold cord upon graduation.

Students with a cumulative GPA of 3.75-3.99 at the time of application for graduation will be awarded High Honors. These students will wear a gold cord at graduation.

Students with a cumulative GPA of 3.50-3.74 at the time of application for graduation will be awarded Honors. These students will wear a silver cord at graduation.

Commencement

Attendance at spring graduation commencement ceremony is optional, but highly recommended in order to celebrate students' accomplishments. Students must indicate their intention to participate in the ceremony on their Application for Graduation. Caps and gowns are required. Student Senate has graciously offered to provide a cap and gown for each graduate free of charge. Caps & gowns can be picked up in the Campus Store the week leading up to commencement.

Students may participate in spring commencement ceremonies if they complete a program of study any time during the academic year or are 8 credits from completion.

Student Records/Data Privacy

Pine Technical and Community College complies with all state and federal data privacy laws. Essentially, this means that a student has the right to see all of their records and to determine, for the most part, who also may see or use this data. A student also has the right to refuse to provide any or all of the data requested. However, there may be consequences for not supplying some of the data. Information on data privacy is covered at Orientation.

Directory information as defined by Policy 5PTCC.23.1 Student Data Privacy is found at www.pine.edu/public-information-and-policies and is data that may be released to anyone without the student's consent. Pine Technical and Community College's Directory Information includes name, hometown, program major, and participation in school activities, dates of enrollment, certificates/diplomas/degrees earned, and awards received.

No other information will be released to anyone, with the exception of certain agencies and school officials as defined by state and federal law, without written permission from the student. *If a student does not want this*

information released, he/she must request confidentiality in writing. This must be done within two weeks after a term begins; a form is available in the Student Services/Records office for this purpose.

Student records are maintained by the Registrar in the Records office. Requests to review student records must be made in writing to the Registrar. Students have the right to challenge the contents of their records and request that corrections or explanations be placed within those records. Contact the Vice President of Academic and Student Affairs for information. For additional support, email records@pine.edu.

Computer Use Policy

Pine Technical and Community College's Information Systems (IS) department provides computer services to College faculty, staff, and students. The IS department offers technical assistance to faculty and staff and maintains all computers in the college. Students may use lab facilities to work on assignments and to conduct research.

The IS department also provides a variety of application software and multimedia production tools. Faculty, staff, and students may check out digital cameras, computer projectors, notebook computers, and other AV equipment for projects directly related to their academic work. The IS department, in cooperation with Disability Services, also provides assistive technologies for College students with disabilities.

College information technology resources are the property of Pine Technical and Community College, and are provided for the direct and indirect support of the College's educational, research, service, student and campus life activities, administrative and business purposes, within the limitations of available College technology, financial and human resources. The use of Pine Technical and Community College information technology is a privilege. Users have no explicit or implicit expectation of privacy. Pine Technical and Community College's computer systems are provided for authorized users only. Unauthorized or improper use of the College's information technology resources may result in administrative disciplinary action and civil and criminal penalties. By logging into Pine Technical and Community College's system you indicate your awareness of, and consent to, these terms and conditions of use. In order to receive a college login account, all students must sign a Computer Responsibility Agreement.

Parking Regulations

Please observe the parking restrictions indicated by signs, snowplowing requirements, yellow lines, etc., especially areas reserved for visitors and handicapped parking spaces.

No overnight parking of vehicles is allowed unless permission from the maintenance department is obtained. There is a designated area for motorcycles and bicycles. Any vehicle parked on the campus is parked at the risk of the owner. The College assumes no responsibility for care or protection of any vehicle or its contents. Please keep your vehicle locked.

Visitor Parking

Visitor parking is designated for guests only.

Parking Violations

Circumstances under which vehicles will be ticketed and/or towed shall include (but not limited to) the following:

1. Parking operations receives a complaint that a vehicle is illegally parked, obstructing traffic, impeding emergency responses and/or college operations, blocking pedestrian traffic, etc.
2. Vehicles parked in such a way to constitute a hazard, impede vehicular and pedestrian traffic, emergency responses and repair, or grounds operations.

Student Petition

Students are provided a process whereby they can request waivers or other exceptions to existing academic or college policies or procedures. The Petition is found on the website under student forms at: http://www.pine.edu/student-forms.

Important Note:

College policies can be subject to changes throughout the academic year. Current policies are listed at https://pine.edu/public-information-and-policies.

Academic-Related Activities

These activities provide opportunities that expand the academic experience beyond the classroom. Academic-related activities include clubs and organizations, Phi Theta Kappa honor society, field trips, forums and conferences, community projects, other class projects, exhibits, and displays. Upcoming Student Life and Student Senate activities are announced weekly in a Student Success newsletter.

Pine Technical & Community College

Applied Engineering Technology - Associate of Applied Science

Design Technology Certificate (16 of credits)

General Education Courses	Credits
MATH 2270 Pre-Calculus	5
Technical Education Courses	
AENG 1231 Material & Manufacturing Process	3
MTTP 1201 Basic Machine Shop	3
MTTP 1220 Print Reading 1	2
MTTP 1241 Introduction to Computer Aided Design (CAD)	3
Certificate Credits	**16**

Design Technologist Diploma (15 additional credits)

General Education Courses	Credits
ENGL 1276 College Composition	4
Technical Education Courses	
AENG 1205 Geometric Dimensioning and Tolerancing	2
AENG 1241 Introduction to Statics	3
AENG 1250 Applied Engineering Design Project	3
AENG 2230 Manufacturing Project Management	3
Diploma Credits	**31**

Applied Engineering Technology AAS (29 additional credits)

General Education Courses	Credits
General Education Electives	
MnTC Goal Areas of choice from 2 different disciplines	7
Technical Education Courses	
AENG 2210 Reverse Engineering	3
AENG 2215 Prototyping	2
AENG 2220 Machine Design & Kinematics	3
AENG 2241 Advanced Computer Aided Design (CAD)	3
AENG 2250 Applied Engineering Capstone	3
ETEC 1550 DC Power & Basic Control Circuits	3
ETEC 1551 Programmable Logic Controllers I	3
ETEC 2522 Fluid Power	2
Associate of Applied Science Credits	**60**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in ALL technical courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2024
Revised: 2/22/23
Approved by AASC :02/22/2023
Approved by Minnesota State Board: 9/13/23
Internally Updated: 11/15/23

Pine Technical & Community College

Automated Systems Technology - Associate of Applied Science

Automated Systems Technology Certificate (20 Credits)

Technical Education Courses	
CMAE 1514 Safety Awareness	**2**
ETEC 1551 Programmable Logic Controllers I	**3**
ETEC 1550 DC Power & Basic Control Circuits	**3**
ETEC 1552 AC Power	**3**
ETEC 1558 Motor Controls	**3**
ETEC 1560 Human Machine Interface I	**3**
ETEC 2543 Programmable Controllers II	**3**
Certificate Credits	**20**

Automated Systems Technology Diploma (10 additional credits)

Technical Education Courses	**Credits**
CMAE 1526 Maintenance Awareness	**2**
ETEC 1541 Mechanical Systems	**3**
ETEC 1581 Automated Systems I	**3**
ETEC 2522 Fluid Power	**2**
Diploma Credits	**30**

Automated Systems Technology Associate of Applied Science (30 additional credits)

General Education Courses	**Credits**
ENGL 1276 College Composition	
or ENGL 1277 Technical Communications	**4**
General Education Elective	
MnTC Goal Area 1	**3**
MATH 1260 College Algebra	
or MATH 1256 Mathematical Thinking	**3**
General Education Electives	
MnTC Goal Area of Choice	**5**
Technical Education Courses	
WELD 1501 Introduction to Welding	**3**
MTTP 1201 Basic Machine Shop	**3**
CMAE 1518 Manufacturing Processes	**2**
AENG 2230 Manufacturing Project Management	**3**
ETEC 2900 Automated Systems Technology Capstone	**4**
Associate of Applied Science Credits	**60**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2022
Revised: 10/27/2021, 11/10/2021, 10/28/2022
Approved by AASC: 11/10/2021
Approved by Minnesota State Board: 12/15/2021
Internally Updated: 10/27/2021

Pine Technical & Community College

Precision Machining Technology Associate of Applied Science

Precision Machining Certificate (28 credits)

General Education Courses	Credits		Credits
COCP 1201 Computer Concepts and Applications	2		
Technical Education Courses			
*MTTP 1208 Measuring Tools	1	*MTTP 1265 Machining Fundamentals II	4
*MTTP 1220 Blueprint Reading I	2	MTTP 1262 Blueprint Reading II	2
MTTP 1241 Introduction to Computer Aided Design (CAD)	3	MTTP 1279 CNC Set-Up & Operate	4
*MTTP 1245 Machining Fundamentals I	4	MTTP 2263 Quality in Manufacturing	2
MTTP 1256 Applied Machining Theory	3	WELD 1570 Metallurgy and Mechanical Properties of Materials	1
Certificate Credits			28

Precision Machining Diploma (17 additional credits)

General Education Courses	Credits		Credits
ENGL 1276 College Composition **or** ENGL 1277 Technical Communications	4		
Technical Education Courses			
MTTP 1261 Introduction to Computer Aided Manufacturing (CAM)	2	MTTP 2260 Cutting Tool Technology	1
MTTP 1277 Machining Processes	2	Technical Elective(s)	3
MTTP 2255 CNC Programming	5		
Diploma Credits			45

Precision Machining Technology Associate of Applied Science (15 additional credits)

General Education Courses	Credits
MATH 1260 College Algebra **or** MATH 1256 Mathematical Thinking	3
General Education Electives *MnTC Goal Area 1 Communication*	3
General Education Electives *MnTC Goal Areas 1-10*	6
Technical Education Courses	
MTTP 2290 Manufacturing Capstone Project **or** MTTP 2268 Machining Internship	3
Associate of Applied Science Credits	60

Additional Requirements:
Developmental courses may be required depending on education background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses.

A Student must attain a grade of 'C' or better in designated (*) courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2020
Revised: 11/13/2019
Approved by AASC: 10/24/2018; 11/13/2019
Approved by Minnesota State Board: 01/31/2019
Internally Updated:10/28/2019

Pine Technical & Community College

Welding Technology - Diploma

Manufacturing Foundations Certificate (8 credits)

Technical Education Courses	Credits
CMAE 1514 Safety Awareness	2
CMAE 1518 Manufacturing Processes and Production	2
CMAE 1522 Quality Practices	2
CMAE 1526 Maintenance Awareness	2
Certificate Credits	**8**

Welding Technology Diploma (25 additional credits)

General Education Courses	Credits
CCPD 1010 Success Strategies for College & Professional Development	2
MATH 1251 Technical Math	3
Technical Education Courses	
WELD 1558 Print Reading for Welders	2
WELD 1562 Oxyfuel Welding and Cutting Process	2
WELD 1564 Shield Metal Arc Welding (SMAW)	4
WELD 1566 Gas Metal Arc Welding (GMAW)/Flux Cored Arc Welding (FCAW)	4
WELD 1568 Gas Tungsten Arc Welding (GTAW)	4
WELD 1570 Metallurgy and Mechanical Properties of Metals	1
WELD 1580 Welding Technologies Capstone Project OR	3
WELD 1585 Welding Internship	
Diploma Credits	**33**

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2019
Revised: 11/14/2018; 12/11/2019, 12/14/2022
Approved by AASC: 12/12/2018;12/11/2019, 12/14/2022
Approved by Minnesota State Board: 01/16/2018
Internally Updated: 12/14/2022

Pine Technical & Community College

Manufacturing Foundations - Certificate

Manufacturing Foundations Certificate (8 Credits)

Technical Education Courses	
CMAE 1514 Safety Awareness	2
CMAE 1518 Manufacturing Process	2
CMAE 1522 Quality Practices	2
CMAE 1526 Maintenance Awareness	2
Total Certificate Credits	**8**

Advising Notes:

This program is a closed enrollment program.Student must meet entrance requirements.

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in ALL courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2015 | Approved by AASC: 05/12/2010 | Approved by Minnesota State Board: 12/04/2014 Internally Updated: 06/17/2016

Pine Technical & Community College

Automotive Technology - Associate of Applied Science

Automotive Technology Certificate (27 credits)

Technical Education Courses	
ATMP 1207 Basic Electricity	**3**
ATMP 1209 Vehicle Service	**3**
ATMP 1219 Brakes	**3**
ATMP 1223 Engine Electrical and Accessories	**6**
ATMP 1230 Engines	**6**
ATMP 1265 Chassis	**6**
Certificate Credits	**27**

Automotive Technology Diploma (29 additional credits)

Technical Education Courses	**Credits**
ATMP 1222 Air Conditioning & Heating Systems	**3**
ATMP 1243 Drivetrain	**3**
ATMP 1248 Automatic Transmissions	**6**
ATMP 1255 Fuel Systems	**6**
ATMP 1261 Alternative Fuels	**1**
ATMP 1275 Wiring & Electrical Diagnosis	**3**
ATMP 1281 General Shop	**4**
ATMP 1289 Scan Tools	**3**
Diploma Credits	**56**

Automotive Technology Associate of Applied Science (15 additional credits)

General Education Courses	**Credits**
General Education *MnTC Goal Area 1- Communication (minimum of 1 course)*	**3-4**
General Education *MnTC Goal Area 4 - Math/Logical Reasoning (minimum of 1 course)*	**3**
General Education *MnTC Goal Area 6- Humanities and Fine Arts (minimum of 1 course)*	**3**
General Education *MnTC Goal Area of choice*	**5-6**
Associate of Applied Science Credits	**71**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for many courses. The requirements of this program are subject to change without notice.

Effective Fall Semester 2019
Revised: 11/14/2018
Approved by AASC: 11/28/2018
Approved by Minnesota State Board: 01/31/2019
Internally Updated: 12/20/2018

Pine Technical & Community College

Business Transfer Pathway – Associate of Science

Business Essentials Certificate (16 credits)

General Education Course	**Credits**
ENGL 1276 College Composition	**4**
Technical Education Course	
BUSN 1120 Business Computer Applications	**3**
Technical Education Electives (choose three)	**9**
BUSN 1110 Introduction to Business (3)	
BUSN 1130 Human Relations in Business (3)	
BUSN 1140 Business Information Systems (3)	
BUSN 1150 Data Analytics for Business (3)	
Certificate Credits	**16**

Business Administration Diploma (16 additional credits)

General Education Course	**Credits**
COMM 1100 Introduction to Communication	**3**
Technical Education Courses	
ACCP 2110 Financial Accounting	**4**
BUSN 2210 Legal Environment of Business	**3**
BUSN 2220 Principles of Marketing	**3**
BUSN 2230 Principles of Management	**3**
Diploma Credits	**32**

Business Transfer Pathway Associate of Science (28 additional credits)

General Education Course	**Credits**
ECON 1230 Principles of Macroeconomics	**3**
ECON 1250 Principles of Microeconomics	**3**
ENGL 2200 Advanced Composition	**3**
MATH 1260 College Algebra	**3**
MATH 1265 Elementary Statistics	**3**
General Education Electives *MnTC Goal Area 3 Natural Sciences*	**4**
General Education Electives *MnTC Goal Areas 6 or 9*	**3**
General Education Elective ***or*** *CCPD 1010 Success Strategies for College & Professional Development*	**2**
Technical Education Course	
ACCP 2120 Managerial Accounting	**4**
Associate of Science Credits	**60**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2021
Revised: 10/11/2017; 5/12/2021
Approved by AASC: 02/8/2017; 5/12/2021
Approved by Minnesota State Board: 10/31/2017; 09/30/2021
Internally Updated: 09/30/2021, 10/26/2022

Pine Technical & Community College

Business Administration – Diploma

Business Essentials Certificate (16 credits)

General Education Course	Credits
ENGL 1276 College Composition	4
Technical Education Course	
BUSN 1120 Business Computer Applications	3
Technical Education Electives (choose three)	9
BUSN 1110 Introduction to Business (3)	
BUSN 1130 Human Relations in Business (3)	
BUSN 1140 Business Information Systems (3)	
BUSN 1150 Data Analytics for Business (3)	
Certificate Credits	**16**

Business Administration Diploma (16 additional credits)

General Education Course	Credits
COMM 1100 Introduction to Communication	3
Technical Education Courses	
ACCP 2110 Financial Accounting	4
BUSN 2210 Legal Environment of Business	3
BUSN 2220 Principles of Marketing	3
BUSN 2230 Principles of Management	3
Diploma Credits	**32**

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2021
Revised: 10/11/2017; 1/22/2020; 5/12/2021
Approved by AASC: 2/8/2017 ; 1/22/2020; 5/12/2021
Approved by Minnesota State Board: 1/26/2018; 10/05/2021
Internally Updated: 5/24/2021, 10/26/2022

Pine Technical & Community College

Business Essentials - Certificate

Business Essentials Certificate (16 Credits)

General Education Course	**Credits**
ENGL 1276 College Composition	**4**
Subtotal	**4**
Technical Education Course	
BUSN 1120 Business Computer Applications	**3**
Technical Education Electives (choose three)	**9**
BUSN 1110 Introduction to Business (3)	
BUSN 1130 Human Relations in Business (3)	
BUSN 1140 Business Information Systems (3)	
BUSN 1150 Data Analytics for Business (3)	
Certificate Credits	**16**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2021
Revised: 10/11/2017

Approved by AASC: 2/8/2017, 5/12/2021

Approved by Minnesota State Board: 1/26/2018
Internally Updated: 5/24/2021, 10/26/2022

Pine Technical & Community College

Construction Technology – Associate of Applied Science

Construction Technology Diploma (31 credits)

General Education Courses	Credits
ENGL 1277 Technical Communications	4
or ENGL 1276 English Composition	
CCPD 1010 Success Strategies for College and Pro. Dev	2
COMM 1100 Introduction to Communication	3
MATH 1251 Technical Math	3
Technical Education Courses	
CONS 1100 Introduction to Construction Careers	2
CONS 1200 Principles of Carpentry and Tool Safety	3
CONS 1250 Construction Plans, Specifications and Codes	2
CONS 1300 Introduction to Building Systems	4
CMAE 1514 Safety Awareness	2
MTTP 1201 Basic Machine Shop	3
WELD 1501 Introduction to Welding	3
Diploma Credits	**31**

Construction Technology Associate of Applied Science (29 additional credits)

General Education Courses	Credits
General Education Electives	
MnTC Goal Areas 3-10	3
General Education Electives	
MnTC Goal Area of Choice	3
Technical Education Courses	
CONS 2100 Construction Internship 1	4
CONS 2150 Construction Internship 2	4
CONS 2200 Construction Internship 3	4
CONS 2250 Construction Internship 4	4
CONS 2230 Construction Project Planning	3
CONS 2290 Construction Technology Capstone	4
Associate of Applied Science credits	**60**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2021 Approved by AASC: 12/16/2020 Approved by Minnesota State Board: 1/15/2020
Internally Updated: 1/27/2020,11/18/2022

Pine Technical & Community College

Early Childhood Development – Associate of Science

Early Childhood Development AS (60 Credits)

	Credits
General Education Courses	
ENGL 1276 College Composition	4
COMM 1100 Introduction to Communication	3
SOCI 1220 Marriage, Family and Relationships	3
General Education Electives *MnTC Goal Area 3 Natural Sciences* ***or** MnTC Goal Area 4 Mathematical / Logical Reasoning*	3
General Education Electives *MnTC Goal Areas 6-10*	17
Subtotal	30
Technical Education Courses	
CDEV 1200 Introduction to Early Childhood Education	3
CDEV 1210 Child Growth & Development	3
CDEV 1222 Health, Safety & Nutrition	3
CDEV 1230 Positive Child Guidance	3
CDEV 1252 Observation & Assessment	3
CDEV 1340 Learning Environment & Curriculum	4
CDEV 2510 Practicum I	3
CDEV 2610 Organizational Leadership & Management	2
CDEV 2620 Children with Differing Abilities	3
CDEV 2640 Curriculum Planning	3
Associate of Science Credits	60

Students must pass a Criminal Background Check

Recommended for articulated bachelor degrees:

MATH 1260 College Algebra (3) – (*Fulfills MnTC Goal area 4)*

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2012
Revised: 11/09/2011

Approved by AASC: 11/18/2009

Approved by Minnesota State Board: 7/30/2006, 2/2012
Internally Updated: 12/02/2019,11/18/2023

Pine Technical & Community College

Early Childhood Development – Associate of Applied Science

Early Childhood Development Certificate (20 credits)

General Education Courses	Credits
ENGL 1276 College Composition	4
Technical Education Courses	
CDEV 1200 Intro to Early Childhood Education	3
CDEV 1210 Child Growth & Development	3
CDEV 1222 Health, Safety & Nutrition	3
CDEV 1230 Positive Child Guidance	3
CDEV 1340 Learning Environment & Curriculum	4
Certificate Credits	**20**

Students must pass a Criminal Background Check

Recommended for articulated bachelor degrees:

MATH 1260 College Algebra (3) –
(*Fulfills MnTC Goal area 4)*

Early Childhood Development Diploma (12 additional credits)

General Education Courses	Credits
SOCI 1220 Marriage, Family & Relationships	3
Technical Education Courses	
CDEV 2510 Practicum I	3
CDEV 1252 Observation & Assessment	3
CDEV 2640 Curriculum Planning	3
Diploma Credits	**32**

Early Childhood Development AAS (28 additional credits)

General Education Courses	Credits
COMM 1100 Introduction to Communication	3
PSYC 1210 General Psychology	4
General Education Elective *MnTC Goal Area 3 Natural Sciences* ***or** 4 Mathematical / Logical Reasoning*	3
General Education Elective *MnTC Goal Areas 6-10*	1
Technical Education Courses	
CDEV 1240 Working with Diverse Families & Children	3
CDEV 2530 Children with Challenging Behaviors	3
CDEV 2610 Organizational Leadership & Management	2
CDEV 2620 Children with Differing Abilities	3
CDEV 2810 Practicum II	3
Technical Elective	3
Associate of Applied Science Credits	**60**

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program aresubject to change without notice.

Effective: Fall Semester 2012
Revised: 11/18/2009 and 11/9/2001

Approved by AASC: 11/18/2009

Approved by Minnesota State Board: 4/21/2005 and 2/27/2012
Internally Updated: 12/02/2019, 11/23/2022

Pine Technical & Community College

Gunsmithing and Firearms Technology – Associate of Applied Science

Gunsmithing and Firearms Technology Diploma (37 credits)

General Education Courses	Credits
ENGL 1276 College Composition **or** ENGL 1277 Technical Communications	4
General Education Electives *MnTC Goal Areas 1-10*	6
Technical Education Courses	
GSTP 1202 Rifle Design and Function	3
GSTP 1204 Shotgun Design and Function	3
GSTP 1210 Gunsmith Machining	4
*GSTP 1217 Firearm Business	2
GSTP 1240 Semiautomatic Design and Theory	3
GSTP 1250 Handgun Design and Theory	4
*MTTP 1208 Measuring Tools	1
MTTP 1241 Introduction to Computer Aided Design (CAD)	3
*MTTP 1245 Machine Fundamentals I	4
Diploma Credits	**37**

Gunsmithing and Firearms Technology Associate of Applied Science (33 additional credits)

General Education Courses	Credits
PHIL 1220 Human Ethics	3
General Education Elective *MnTC Goal Areas 1-10*	3
Technical Education Courses	
*GSTP 1230 Gunsmith Welding and Metallurgy	3
GSTP 2230 Barreling and Chambering	4
GSTP 2233 Firearm Finishes	4
GSTP 2267 Stockmaking	3
GSTP 2270 Shotgunsmithing	3
GSTP 2280 Riflesmithing	3
GSTP 2285 Pistolsmithing	3
GSTP 2290 Gunsmithing Capstone	4
Associate of Applied Science Credits	**70**

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in designated (*) courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2021 Approved by AASC: 1/27/2021 Approved by Minnesota State Board: 03/10/2021
Internally Updated: 1/27/2021

Pine Technical & Community College

Emergency Medical Services Professional – Certificate

Emergency Medical Services Professional Certificate (17 Credits)

General Education Courses	Credits
*BIOL 1240 Health and Disease in the Human Body	4
Subtotal	**4**
Technical Education Courses	
EMT 1720 Introduction to Emergency Medical Services	**1**
EMT 1725 Emergency Medical Technician	**6**
EMT 1730 Emergency Medical Technician Clinical	**2**
EMT 1735 Emergency Medical Operations	**3**
HPPC 1002 Medical Terminology	**1**
Total Certificate Credits	**17**

Accepted Substitutions:

* BIOL 1260 Human Anatomy & Physiology is recommended as a substitution for BIOL 1240 for those planning to transfer into a Paramedicor Advanced EMT.

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Spring Semester 2019

Approved by AASC:04/25/2018

Approved by Minnesota State Board: 09/06/2018
Internally Updated: 01/12/2019, 10/26/2022

Pine Technical & Community College

Nursing Assistant and Medication Aide – Certificate

Nursing Assistant and Medication Aide Certificate (17 Credits)

General Education Courses	Credits
BIOL 1240 Health and Disease in the Human Body	4
ENGL 1276 College Composition	4
Subtotal	**8**

Technical Education Courses	
HEOP 1241 Nursing Assistant	2
HEOP 1242 Nursing Assistant Clinical	1
HPPC 1000 Medical Dosages	1
HPPC 1002 Medical Terminology	1
HPPC 1004 Pharmacology	1
HPPC 1010 Trained Medication Aide for Unlicensed Professionals	3
Total Credential Credits	**17**

Advising Notes:

This certificate is beneficial for anystudent planning to obtain a healthcare related degree.

Students can choose to complete this certificate in one semester or split it into two.

(Components of this certificate fulfill all required prerequisites for the Practical Nursing Program)

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2021

Approved by AASC: 11/25/2020

Approved by Minnesota State Board: 03/17/2021
Internally Updated: 01/28/2020, 10/26/2022

Pine Technical & Community College

Nursing Mobility – Associate of Science

Associate of Science (64 Credits)

General Education Courses	Credits
BIOL 1250 General Biology	4
BIOL 1255 Microbiology	3
BIOL 1260 Anatomy and Physiology I	4
BIOL 1270 Anatomy and Physiology II	4
ENGL 1276 College Composition	4
PHIL 1220 Human Ethics	3
PSYC 1210 General Psychology	4
PSYC 1250 Lifespan Development	3
General Education Elective Courses	
MnTC Goal Area 1-10; *1 course*	1
Subtotal	**30**
Technical Education Courses	
NURS 2922 Professional Nursing Practicum I	4
NURS 2923 Role Transition: LPN to Professional Nurse	2
NURS 2925 Medical Surgical Professional Nursing I	4
NURS 2926 Psychosocial Nursing for the Professional Nurse	2
NURS 2928 Professional Nursing Lab I	2
NURS 2931 Professional Nursing Leadership and Management	2
NURS 2936 Professional Nursing Practicum II	4
NURS 2945 Medical Surgical Professional Nursing II	3
NURS 2946 Maternal Newborn and Pediatric Nursing for the Professional Nurse	3
NURS 2948 Professional Nursing Lab II	2
LPN Students will be awarded advanced standing nursing credits	6
Total Credential Credits	**64**

General Education Notes:

- Prior to admission to NURS courses, students must complete all 28 credits of required general education courses with no substitutions accepted.
- General Education Elective from Minnesota Transfer Curriculum (MnTC) can be taken concurrently with either General Education or NURS courses.

Program prerequisites to be completed before or at the time of internal application:

- Current Licensed Practical Nurse Licensure
- Documentation of current Health Care Provider CPR course or CPR for the Professional Rescuer
- Completion of required Criminal Background Check
- Clinical site physical/immunizations
- Student must have GPA of 3.0 in General Education courses to apply for the program.
- Student must meet minimum benchmark on an entrance exam prior to acceptance into the program.

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses.

A student must attain a grad of 'C' or better in ALL courses and a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective 6/2/2011
Approved by AASC: 6/24/2009, 12/14/2022
Approved by Minnesota State Board: 9/29/20019, 5/1/2015
Approved by Minnesota Board of Nursing: 6/2/2011, and 3/18/2015
Revised: 12/9/2009, 4/8/2015, 1/13/2016, 12/14/2022
Internally updated: 2/11/2019, 12/14/2022

Pine Technical & Community College

Practical Nursing - Diploma

Preliminary Courses (11 Credits)

Preliminary Courses	Credits
BIOL 1240 Health and Disease in the Human Body	4
ENGL 1276 College Composition	4
HPPC 1000 Medical Dosages	1
HPPC 1002 Medical Terminology	1
HPPC 1004 Pharmacology	1
Subtotal	**11**

Acceptance in the Practical Nursing program (PRSG) is required prior to taking any PRSG Courses.

Technical Education Courses	
PRSG 1110 Foundations of Practical Nursing	3
PRSG 1200 Nursing Care of the Adult Theory I	4
PRSG 1300 Medication Administration for the PN	3
PRSG 1410 Human Development Across the Lifespan	2
PRSG 1500 Clinical Lab I	4
PRSG 2100 Nursing Care of the Adult Theory II	4
PRSG 2210 Psychosocial Nursing Care	2
PRSG 2220 Nursing Care of Women Infants and Children	2
PRSG 2410 Transition to Practice	2
PRSG 2600 Clinical Lab II	4
Diploma Credits	**41**

Accepted Substitutes:
The combination of BIOL 1250 General Biology I, BIOL 1260 Anatomy and Physiology I, and BIOL 1270 Anatomy and Physiology II may be used as substitution for BIOL 1240 Health and Disease in the Human Body.

Notes:
Upon successful completion of the preliminary courses, students are eligible to apply to begin the PRSG technical education courses. *

***Additional Requirements:**

The following additional requirements must be completed prior to application (outside certification will be considered)

1. *Student must be in current good standing on the Minnesota or Wisconsin Nursing Assistant Registry*
2. *Documentation of current CPR for the Health Care Provider or CPR for the Professional Rescuer*
3. *Completion of required Criminal Background Checks*
4. *Clinical site physical/immunizations*
5. *Students must have GPA of 2.8 in preliminary courses to apply for the program.*
6. *Students must meet minimum benchmarks on entrance exam prior to acceptance into the program.*

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in ALL courses. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2024 Approved by AASC: 10/9/2013, 1/13/2016, 1/24/2018, and 1/24/24 Approved by Minnesota State Board: 12/17/2016 and 3/1/2016
Internally Updated: 3/5/2019 and 1/24/24

Pine Technical & Community College

Human Services Eligibility Worker – Associate of Applied Science

Human Services Eligibility Worker Diploma (40 credits)

General Education Courses	Credits
ENGL 1277 Technical Communications **or** ENGL 1276 College Composition	4
SOCI 1225 Human Diversity	3
General Education Elective *MnTC Goal Area of Choice*	3
Technical Education Courses	
HSEW 1201 Introduction to the HSEW Role	4
HSEW 1205 Worker Skill	4
HSEW 1230 Public Assistance Policy 1	4
HSEW 1235 Eligibility Systems 1	4
HSEW 2230 Public Assistance Policy 2	4
HSEW 2235 Eligibility Systems 2	4
HSEW 2290 Internship	6
Diploma Credits	**40**

Human Services Eligibility Worker AAS (20 additional credits)

General Education Courses	Credits
General Education Electives *MnTC Goal Areas of Choice*	20
Associate of Applied Science Credits	**60**

Note:

Admission to the Associate of Applied Science degree requires completion of the Human Services Eligibility Worker Diploma within the 12 months prior **or** an active login ID in the Minnesota Department of Human Services Eligibility System(s).

Additional Requirements:
Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. A student must attain a final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2013 Approved by AASC: 11/14/2012 Approved by Minnesota State Board: 1/15/2013
Internally Updated: 3/4/2019

Pine Technical & Community College

Individualized Studies
Diploma 45 Credits
Associate of Applied Science (A.A.S.) 60 credits
Associate of Science (A.S.) 60 Credits

Program Description
The purpose of the individualized studies degree is to provide students with the opportunity to specialize in two or more academic areas. As more industry partners and students identify niche needs and skills, these flexible degree options provide the rigor and focus needed for individual student's career goals that are not represented in other degree offerings. This flexible degree program requires consultation with an industry representative and Pine Technical College faculty to assist in course selection for a coherent program of study that meets industry needs.

Transfer Opportunities
The College of Individualized Studies at Metropolitan State University has developed an articulation agreement that will accept into to transfer any A.A.S. or A.S. degree into their Bachelor of Arts Individualized Studies program.

Curriculum
A student who in consultation with the student's advisor determines an unusually specialized program is appropriate to meet the student's career goals will work with the advisor to plan an individualized studies program that reflects the student's professional and personal goals. After the initial consultation, the student will construct with an advisor, other faculty, and industry representatives a degree plan that meets both the requirements of MinnState's "Design Criteria for Undergraduate Individualized Programs" policy and Pine Technical College's requirements for a degree

Once the required procedures are completed, the degree plan will be filed with the Registrar.

Procedure:
The following are the procedures for an individualized studies degree:

- The student will contact his/her advisor with a preliminary plan for degree development
- In consultation with the student, the advisor will identify other possible faculty and/or industry representatives to further assist the student in degree planning
- The advisor will assist the student in the development of the proposal; the proposal must include justification for specialization and a list of courses which meet the individualized studies degree requirement
- The student will obtain the approval and signature of the Department Chair from each department the student lists courses for the proposed degree and from involved industry partners
- After obtaining the Department Chair(s) signature(s), the student will obtain the approval and signature of the Chief Academic Officer

Pine Technical & Community College

Diploma 45 credits

Curriculum Design

- Multidisciplinary: Minimum of 9 credits required in at least 2 unrelated areas of study
- Interdisciplinary: Minimum of 9 credits in at least 2 thematically related areas of study
- Intradisciplinary: Minimum of 32 credits from one area of study

A.A.S. 60 credits

Curriculum Design

- Multidisciplinary: Minimum of 9 credits required in at least 2 unrelated areas of study
- Interdisciplinary: Minimum of 9 credits in at least 2 thematically related areas of study
- Intradisciplinary: Minimum of 32 credits from one area of study

A.S. 60 credits

Curriculum Design

- Multidisciplinary: Minimum of 9 credits required in at least 2 unrelated areas of study
- Interdisciplinary: Minimum of 9 credits in at least 2 thematically related areas of study
- Intradisciplinary: Not applicable; requirements defined by the articulation agreement

Pine Technical & Community College

Cyber Security - Associate of Applied Science

Cyber Security Diploma (33 credits)

General Education Courses	Credits
MATH 1260 College Algebra Or Math 1256 Mathematical Thinking	3
ENGL 1277 Technical Communications **or** ENGL 1276 College Composition	4
Technical Education Courses	
CSEC 1300 Cybersecurity Essentials	2
COCP 1209 Workstation Operating System	3
COCP 1211 Network Security	3
COCP 1213 Introduction to Programming	3
COCP 1220 Network Administration 1	3
COCP 1221 Network Administration 2	3
COCP 1250 Computer Hardware Support	3
COCP 1251 Computer Software Support	3
CSEC 2310 Network Intrusion	3
Diploma Credits	**33**

Cyber Security AAS Degree (27 additional credits)

General Education Courses	Credits
General Education Electives *MnTC Goal Areas (2 different areas): 3 Natural Science, 5 History, Social Science and Behavioral Sciences; or 9 Ethical and Civic Responsibility*	9
Technical Education Courses	
BUSN 1110 Introduction to Business	3
COCP 1253 Microsoft Server Operating System	3
COCP 2230 Linux Administration	3
COCP 2258 Project Management	3
CSEC 2313 Firewalls & VPN's	3
CSEC 2320 Advanced Network Defense	3
Associate of Applied Science Credits	**60**

Additional Requirements:
Developmental courses may be required depending on education background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2024
Revised: 11/14/2018, 10/09/2019, 11/24/2021, 5/10/2023
Approved by AASC: 10/09/2019, 11/24/2021. 5/10/2023
Approved by Minnesota State Board: 08/10/2015
Internally Updated: 11/24/2021,10/26/2022

Pine Technical & Community College

Network Administration – Associate of Applied Science

Network Technician Certificate (24 Credits)

General Education Courses	Credits
MATH 1260 College Algebra OR MATH 1256 Mathematical Thinking	3
Technical Education Courses	
COCP 1209 Workstation Operating System	3
COCP 1211 Network Security	3
COCP 1213 Introduction to Programming	3
COCP 1220 Networking Admin 1	3
COCP 1250 Computer Hardware Support	3
COCP 1251 Computer Software Support	3
COCP 1253 Microsoft Server Operating System	3
Certificate Credits	**24**

Network Administration AAS Degree (36 additional credits)

General Education Courses	Credits
ENGL 1277 Technical Communications or ENGL 1276 College Composition	4
General Education Electives	
MnTC Goal Areas (2 different areas): 3 Natural Science, 5 History, Social Science and Behavioral Sciences; or 9 Ethical and Civic Responsibility	9

Technical Education Credits

BUSN 1110 Introduction to Business	3
COCP 1221 Networking Admin 2	3
COCP 1222 Networking Admin 3	3
COCP 1223 Networking Admin 4	3
COCP 2204 Windows Server Administration	3
COCP 2230 Linux Administration	3
COCP 2258 Project Management	3
COCP 1224 Cisco CCNA Certification Study Course	2
Associate of Applied Science Credits	**60**

Additional Requirements:
Developmental courses may be required depending on education background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2020
Revised: 11/18/2009, 11/9/2001, 10/9/2019, 11/24/2021 5/10/2023
Approved by AASC: 10/9/2019, 11/24/2021, 5/10/2023
Approved by Minnesota State Board: 4/21/2005 & 2/27/2011
Internally Updated: 11/24/2021, 10/26/2022 5/10/2023

Pine Technical & Community College

Liberal Arts and Sciences - Associate of Arts

Minnesota Transfer Curriculum (MnTC) (40 credits)

General Education Courses	Credits
MnTC Goal Area 1 Communications 3 courses: *(2) ENGL Composition and (1) SPCH or COMM*	10-11
MnTC Goal Area 2 Critical Thinking 0-1 course: (*fulfilled when all other goal areas are complete)*	0-2
MnTC Goal Area 3 Natural Science 2 courses: *different disciplines*	7-8
MnTC Goal Area 4 Mathematical/Logical Reasoning 1 course	3
MnTC Goal Area 5 History, Social Science, and Behavioral Sciences 2 courses: *different disciplines*	6
MnTC Goal Area 6 Humanities and the Fine Arts 2 courses: *different disciplines*	6
MnTC Goal Area 7 Human Diversity 1 course	3
MnTC Goal Area 8 Global Perspectives 1 course	3
MnTC Goal Area 9 Ethical and Civic Responsibility 1 course	3-4
MnTC Goal Area 10 People and the Environment 1 course	3-4
MnTC Credits	**40**

Notes:

- Courses may satisfy more than one goal area, although credits are counted only once towards the 40-credit minimum requirement.
- See your advisor for clarification

Liberal Arts and Sciences Associate of Arts (20 additional credits)

General Education Courses	Credits
CCPD 1010 Success Strategies for College & Professional Development	2
One of the following: COCP 1201 Computer Concepts & Applications *(2 credits)* BUSN 1120 Business Computer Applications *(3 credits)* CCPD 1200 Advanced Career Exploration *(1 credit)*	1-3
General or Technical Education Courses	
Electives	15-17
Associate of Arts Degree Credits	**60**

Additional Requirements:
Associate of Arts Degree requires completion of a total of 60 semester credits numbered 1000 or above; minimum of 40 general education credits completing the Minnesota Transfer Curriculum; cumulative GPA of 2.0 or higher. Developmental courses may be required depending on education background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notices.

Students transferring in 15 credits from any accredited college who have successfully completed each of these courses with a "C" or better within three years would not be required to take CCPD 1010. Students transferring a faculty approved one-credit first year experience (student success) course would not be required to take the CCPD 1010 course and can take a different course for Goal 2.

Effective: Fall Semester 2020
Revised: 9/13/2017, 12/11/2019, 10/28/2020
Approved by AASC: 2/27/2013, 12/11/2019
Approved by Minnesota State Board: 3/11/2014
internally updated: 12/31/2019, 10/26/2022

Pine Technical & Community College

Psychology Transfer Pathway - Associate of Arts Degree

Psychology Transfer Pathway Associate of Arts Degree (60 Credits)

Required Pathway Courses	**Credits**
PSYC 1210 General Psychology	**4**
PSYC 1350 Statistics for Psychology	**4**
Pathway Restricted Courses (choose one)	
PSYC 1250 Lifespan Development	
PSYC 1320 Abnormal Psychology	**3**
PSYC 1300 Social Psychology	
Pathway Elective courses (choose one)	
PSYC 1225 Health Psychology	
PSYC 1220 Environmental Psychology	**3**
Or one PSYC not taken from the restricted courses	
Subtotal	**14**
Required General Education Courses	
ENGL 1276 College Composition	**4**
BUSN 1120 or COCP 1201 Computer Applications	**3-2**
COMM 1100 Introduction to Communications	**3**
CCDP 1010 Success Strategies for College & Prof Dev	**2**
PHIL 1220 Human Ethics	**3**
BIOL 1250 General Biology	**4**
MATH 1260 College Algebra or MATH 1265 Elementary Stats.	**3**
Select any additional PSYC course-This may be a course from the listed PSYC electives above or another PSYC course	**3**
Subtotal	**24-25**
General Education Electives	
MnTC Goal Area 1- One additional ENGL course	**3**
MnTC Goal Area 3- other than BIOL	**3**
MnTC Goal Area 5- other than PSYC	**3**
MnTC Goal Area 6- other than PHIL	**3**
MnTC Goal Area 10	**3**
MnTC Goal Area 8	**3**
Any MnTC goal area electives	**3-4**
Subtotal	**21-22**
Total Credits for the Associate of Arts Degree	**60**

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective: Fall Semester 2022 Approved by AASC: 12/08/2021 Approved by Minnesota State Board: 02/03/2022
Revised Internally Updated:02/04/2022, 10/26/2022

Pine Technical & Community College

Management Information Systems - Associate of Applied Science

Business Essentials Certificate (16 of credits)

General Education Courses	**Credits**
ENGL 1276 College Composition	**4**
Technical Education Courses	
BUSN 1120 Business Computer Applications	**3**
Technical Education Courses (choose three)	**9**
BUSN 1110 Introduction to Business (3)	
BUSN 1130 Human Relations in Business (3)	
BUSN 1140 Business Information Systems (3)	
BUSN 1150 Data Analytics for Business (3)	
Certificate Credits	**16**

Management Information Systems Diploma (15 additional credits)

Technical Education Courses	**Credits**
BUSN 11XX *(BUSN course not taken in the certificate)*	**3**
COCP 1209 Workstation Operating Systems	**3**
COCP 1220 Network Administration 1	**3**
COCP 1250 Computer Hardware Support	**3**
COCP 1251 Computer Software Support	**3**
Diploma Credits	**31**

Management Information Systems AAS (29 additional credits)

General Education Courses	**Credits**
General Education Electives	
MnTC Goal Areas 2-5 or 9-(2 different goal areas)	**12**
Technical Education Courses	
BUSN 2220 Principles of Marketing	**3**
BUSN 2230 Principles of Management	**3**
COCP 1213 Introduction to Programming	**3**
COCP 2258 Project Management	**3**
CSEC 1300 Cybersecurity Essentials	**2**
Technical Education Electives (choose one)	
COCP 1211 Network Security (3)	**3**
COCP 1221 Network Administration 2 (3)	
COCP 1253 Microsoft Server Operating System (3)	
Associate of Applied Science Credits	**60**

Additional Requirements:

Developmental courses may be required depending on educational background and/or assessment scores. Developmental courses do not fulfill graduation requirements and are required as prerequisites for some courses. The requirements of this program are subject to change without notice.

A student must attain a grade of 'C' or better in all technical education courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Effective Fall Semester 2022
Revised:5/812/2021, 02/09/2022
Approved by AASC: 1/22/2020, 5/12/2021, 02/09/2022
Approved by Minnesota State Board: 02/12/2020
Internally Updated: 02/09/2022, 10/26/2022

Courses

Discipline	Abbreviation
ACCOUNTING	ACCP
ART	ARTS
APPLIED ENGINEERING	AENG
AUTOMATION	ETEC
AUTOMOTIVE	ATMP
BIOLOGY	BIOL
BUSINESS	BUSN
COLLEGE CAREER AND PROFESSIONAL DEVELOPMENT	CCPD
EARLY CHILDHOOD DEVELOPMENT	CDEV
CHEMISTRY	CHEM
360° PRODUCTION TECHNOLOGIES	CMAE
COMMUNICATIONS	COMM
COMPUTER & INFORMATION SCIENCES	COCP
CONSTRUCTION TECHNOLOGY	CONS
CYBER-SECURITY	CSEC
ECOLOGY	ECOL
ECONOMICS	ECON
EMERGENCY MEDICAL TECHNICIAN	EMT
ENGLISH	ENGL
ENVIRONMENTAL SCIENCE	ENSC
GEOGRAPHY	GEOG
GERMAN	GERM
GUNSMITHING	GSTP
HEALTH CARE CORE CURRICULUM	HCCC
HEALTH CARE PRE-PROFESSIONAL	HPPC
HISTORY	HIST
HUMAN SERVICES ELIGIBILITY WORKER	HSEW
AMERICAN SIGN LANGUAGE	LASL
MATH	MATH
MACHINE TECHNOLOGY	MTTP
MUSIC	MUSC
NURSING ASSISTANT	HEOP
NURSING	NURS
PHILOSOPHY	PHIL
POLITICAL SCIENCE	POLS
PRACTICAL NURSING	PRSG
PSYCHOLOGY	PSYC
SOCIOLOGY	SOCI
SPANISH	SPAN
THEATRE	THTR
WELDING	WELD

Accounting (ACCP)

ACCP 2110 - Financial Accounting (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
Students will learn the concepts of financial accounting through the measurement, communication, and analysis of economic events for the benefit of investors, creditors, and other external users of financial accounting information. Emphasis is on the preparation and analysis of financial statements in corporate and annual reports. Transfer Curriculum Goal(s): none

ACCP 2120 - Managerial Accounting (4 credits)
Prerequisite: ACCP 2110 Financial Accounting (with a "C" or better)
Corequisite: none
This course introduces the foundations of managerial accounting. The emphasis is on managements use of accounting information for planning, controlling, and decision making. Topics covered include cost behavior, an overview of job order and process costing, cost volume profit analysis, budgeting, cost analysis, and capital budgeting decisions. Transfer Curriculum Goal(s): none

Art (ARTS)

ARTS 1201 - Elements & Principles of Art (3 credits)
Prerequisite: none *Corequisite:* none
This course is a foundation-level study of the development, principles, and elements of two-dimensional artwork. Students will explore the concepts of composition through guided projects and demonstrations, using a variety of materials and techniques to build an understanding of the foundation of two-dimensional expression, and they will explain the historical and contemporary perspectives that influence two-dimensional design and the arts. Students will use a creative thinking process to experiment, brainstorm, and evaluate the effectiveness of personal artwork through critique. Students will also practice safety measures appropriate to the materials and processes for creating art works. Transfer Curriculum Goal(s): 6

ARTS 1202 - Introduction to Drawing (3 credits)
Prerequisite: none *Corequisite:* none
This course introduces students to fundamental principles of drawing. Projects emphasize drawing through observation of nature, still life, and the human form. Through course assignments, students will improve their

drawing skills, engage in creative problem solving, and broaden knowledge of the cultural and historical relevance of drawing. Students will also analyze the effectiveness of personal artwork and the work of others using terms and criteria common to art. Transfer Curriculum Goal(s): 6

ARTS 1203 - Introduction to Painting (3 credits)
Prerequisite: none *Corequisite:* none
This course introduces students to the fundamentals of painting. Students will apply principles, methods, and materials to produce paintings. Assignments will focus on color and visual theory and technical skills as it applies to a range of painting approaches from realism to abstraction. Students will also analyze the effectiveness of personal artwork and the work of others using terms and criteria common to art and broaden their knowledge of the cultural and historical trends in painting. Students will learn to handle and store materials safely in a collaborative environment. Transfer Curriculum Goal(s): 6

ARTS 1204 - Introduction to Sculpture (3 credits)
Prerequisite: ARTS 1201 Elements and Principles of Art *Corequisite:* none
Students will explore three-dimensional sculptural forms and structures with an emphasis on how formal elements relate to the world outside of an art context. Assignments will focus on a variety of styles from representational to abstract. Students will also analyze the effectiveness of personal artwork and the work of others using terms and criteria common to art and broaden their knowledge of the cultural and historical relevance of sculpture. Students will learn to handle and store art materials safely in a collaborative environment. Transfer Curriculum Goal(s): 6

ARTS 1229 - Art Appreciation (3 credits)
Prerequisite: Placement determined by college ready assessment score in reading *Corequisite:* none
This course is an introduction to the essential concepts, styles, and forms of Western and non-Western visual arts, and the variety of manners in which art is understood. The students will learn the appreciation of art through studying the principles, techniques and materials of design, the popular and historical development of art, art criticism and aesthetic awareness. Transfer Curriculum Goal(s): 6

Applied Engineering (AENG)

AENG 1205 - Geometric Dimensioning and Tolerancing (2 credits)
Prerequisite: MTTP 1220 Print Reading I *Corequisite:* none
This course introduces topics in geometric dimensioning and tolerancing. Students will engage in learning how to read prints with geometric dimensioning and tolerancing applications. Each of the geometric controls will be examined so the students may determine the allowable variation in form and size between part features. The ANSI Y14.5M standard will be part of the overall instruction. Using precision equipment, most of the geometric controls will be inspected to print specifications. Transfer Curriculum Goal(s): none

AENG 1231 - Material & Manufacturing Process (3 credits)
Prerequisite: none *Corequisite:* none
This course will explore the field of materials will be explored and the fundamental principles of engineering materials will be introduced including mechanical, chemical and physical properties, and their measurement. Students will learn basic manufacturing processes with an emphasis on machine tool process, conventional lathe and milling machines, casting and molding, hot and cold forming, measuring equipment, and quality control. Transfer Curriculum Goal(s): none

AENG 1241 - Introduction to Statics (3 credits)
Prerequisite: MATH 2270 Pre-Calculus *Corequisite:* none
This course introduces the concepts of engineering based on forces in equilibrium. Students will learn the concepts of concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Students will solve problems that require the ability to analyze systems of forces in static equilibrium. Transfer Curriculum Goal(s): none

AENG 1250 - Applied Engineering Design Project (3 credits)
Prerequisite: MTTP 1241 Introduction to Computer Aided Design
Corequisite: none
This course allows students to develop their professional competency by designing a simple system or mechanism. Students are expected to work independently and ask for help when needed. The project concludes with a presentation of the work performed and the learning accomplished during the project. Transfer Curriculum Goal(s): none

AENG 2210 - Reverse Engineering (3 credits)
Prerequisite: AENG 1231 Material & Manufacturing Processes, MTTP 1241 Introduction to Computer Aided Design *Corequisite:* none
In this course students will be introduced to reverse engineering methodology through practical projects. Students will learn and utilize reverse engineering techniques to integrate with computer software to duplicate physical parts for exportation to Computer Aided Design (CAD) software. The reverse engineering processes and procedures will be documented throughout the project. Transfer Curriculum Goal(s): none

AENG 2212 - Prototyping (3 credits)
Prerequisite: WELD 1501 Introduction to Welding, MTTP 1201 Basic Machine Shop, and MTTP 1241 Introduction to Computer Aided Design *Corequisite:* none
In this course students will be introduced to prototyping methodology through practical projects. Students will use rapid prototyping techniques to integrate with computer software to produce a physical model of a part. Students will be introduced to several prototyping techniques and use various machine tools and 3D printing in order to create a prototype of a part. The prototyping processes and procedures will be documented throughout the project. Transfer Curriculum Goal(s): none

AENG 2215 - Prototyping (2 credits)
Prerequisite: MTTP 1241 Introduction to Computer Aided Design
Corequisite: none
In this course students will be introduced to prototyping methodology through practical projects. Students will use rapid prototyping techniques to integrate with computer software to produce a physical model of a part. Students will be introduced to several prototyping techniques and use various tools and 3D printing in order to create a prototype of a part. The prototyping processes and procedures will be documented throughout the project. Transfer Curriculum Goal(s): none

AENG 2220 - Machine Design & Kinematics (3 credits)
Prerequisite: AENG 1241 Introduction to Statics *Corequisite:* none
This course covers machine design concepts and the study of the motion of objects and how they relate to machines. Students will apply mathematics, science and engineering to design systems and select components and processes to meet desired needs within realistic constraints. Transfer Curriculum Goal(s): none

AENG 2230 - Manufacturing Project Management (3 credits)
Prerequisite: none *Corequisite:* none
This course will introduce students to the processes of project planning from the early stages of brainstorming through completion. Students will learn to create timetables, write project proposals, and manage resources, all leading to project implementation. Students will learn to select a project appropriate to their field of study and apply project planning techniques and software. Transfer Curriculum Goal(s): none

AENG 2241 - Advanced Computer Aided Design (CAD) (3 credits)
Prerequisite: MTTP 1241 Introduction to Computer Aided Design (CAD)
Corequisite: none
This course covers advanced design concepts including how to use multibody solids, surfacing, and advanced software capabilities. Students will learn advanced CAD techniques used for casting, weldments, sheet metal, and molding, as well as virtual engineering analyses. Transfer Curriculum Goal(s): none

AENG 2250 - Applied Engineering Capstone (3 credits)
Prerequisite: ENGL 1276 College Composition or ENGL 1277 Technical Communications and AENG 2241 Advanced Computer Aided Design and AENG 1250 Applied Engineering Design Project *Corequisite:* none
This course allows students to develop professional competency through a project in their chosen focus area. Within this project students will apply skills attained from prior courses: system design (CAD), prints (GD&T), material selection, and project management. Students will be required to take an idea from concept to a working prototype. Students are expected to work independently. Transfer Curriculum Goal(s): none

Automation (ETEC)

ETEC 1541 - Mechanical Systems (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Match Concepts or equivalent assessment score *Corequisite:* none
This course covers mechanical systems utilized in robotic and automated equipment. Students will learn to identify, install, maintain, and repair typical mechanical parts and assemblies such as gears, bearings, housings, slides, racks, linkages, pistons, seals, belts, and fixture elements. Transfer Curriculum Goal(s): none

ETEC 1550 - DC Power & Basic Control Circuits (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0365 Algebra Concepts or an equivalent assessment score *Corequisite:* none
This course covers the basic principals in DC electric circuits including series, parallel and complex circuit analysis, Ohm's Law, meters, conductors, insulators, resistors, batteries, and magnetism. The use and understanding of test equipment for circuit analysis is stressed. Transfer Curriculum Goal(s): none

ETEC 1551 - Programmable Logic Controllers 1 (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Math Concepts or equivalent assessment scores *Corequisite:* none
This course introduces the programmable logic controller (PLC) and how it is used to control automated equipment. Students will learn basic PLC programming (using ladder logic), control wiring, labeling, and documentation of simple automated systems. Transfer Curriculum Goal(s): none

ETEC 1552 - AC Power (3 credits)
Prerequisite: CMAE 1514 Safety Awareness and ETEC 1550 DC Power
Corequisite: none
This course covers investigation of alternating current and its behavior in resistive, inductive and reactive series, parallel, and series/parallel circuits; use of test instrumentation; and electromagnetic induction. Transfer Curriculum Goal(s): none

ETEC 1558 - Motor Controls (3 credits)
Prerequisite: CMAE 1514 Safety Awareness and ETEC 1550 DC Power
Corequisite: none
This course introduces the learner to motor control components and provides them with a basic knowledge of control circuitry. The learner will build on his/her experiences for basic electricity by designing, building, and troubleshooting more complex circuits. Devices such as contactors, motor-starters, relays, timers, mechanical, and proximity switches are used. Electronic motor controls and programmable devices such as variable frequency drives are introduced. Transfer Curriculum Goal(s): none

ETEC 1560 - Human Machine Interface 1 (3 credits)
Prerequisite: ETEC 1551 Programmable Logic Controllers 1 *Corequisite:* none
This course will introduce students to design and program graphical user interfaces to control industrial automated systems. Students will create operator interface stations for local cell operators to provide input, control, and production information. Students will also create necessary complementary code and driver setup for the required controller communications. Transfer Curriculum Goal(s): none

ETEC 1581 - Automated Systems 1 (3 credits)
Prerequisite: CMAE 1514 Safety Awareness, ETEC 1550 DC Power, ETEC 1541 Mechanical Systems, and ETEC 1551 Programmable Logic Controllers 1 *Corequisite:* none
This course allows students to develop professional competency in their chosen focus area by working on a semester long project. Students will be required to safely construct, test, and troubleshoot a working automated system. Students are expected to work independently and to ask for help when needed. The project concludes with a presentation of the work performed and the learning accomplished during the project. Transfer Curriculum Goal(s): none

ETEC 2500 - Advanced Technical Skills (variable credits)
Prerequisite: Instructor Permission *Corequisite:* none
This course allows students to build on their core course work to advance technical skills. Students are required to complete projects that hone their skills in a knowledge area. Based on these projects, students will develop learning modules, such that students are able to serve as examples to other students for those particular skill areas. Module content and scope must be approved by the instructor. Students may take the course for 1 or 2 credits per semester up to a total of 4 course credits. Transfer Curriculum Goal(s): none

ETEC 2522 - Fluid Power (2 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Math Concepts or equivalent assessment score *Corequisite:* none
This course covers fluid power systems used in industry. Students will learn hydraulic and pneumatic concepts, components, control, and maintenance practice as well as gain safe exposure to valves, regulators, hoses and tubing, couplings, and pneumatic and hydraulic pumps. In addition they learn to read common schematic symbols for fluid power systems. Transfer Curriculum Goal(s): none

ETEC 2543 Programmable Logic Controllers 2 (3 credits)
Prerequisite: ETEC 1551 Programmable Logic Controllers 1 *Corequisite:* none
This course develops more advanced topics of programmable logic controller (PLC) integration. Students will learn proper programming, integration, wiring, labeling, and documentation of complete robotic and automated work cells. Supervisory Control and Data Acquisition (SCADA) concepts are covered as well as high voltage procedures, legal requirements, and best practices. Transfer Curriculum Goal(s): none

ETEC 2900 - Automated Systems Technology Capstone (4 credits)
Prerequisite: ETEC 1581 Automated Systems 1 *Corequisites:* none
This course allows students to develop professional competency in their chosen focus area by working on a semester-long project. Within this project students will apply skills attained from prior courses. Students will be required to safely construct, test, and troubleshoot a working automated system which will serve as a culmination of their work in the Automated Systems Technology Program. The project concludes with a presentation of the work performed and the learning accomplished during the project. Transfer Curriculum Goal(s): none

Automotive (ATMP)

ATMP 1207 - Basic Electricity (3 credits)
Prerequisite: ATMP 1209 Vehicle Service and a minimum entry assessment score in reading *Corequisite:* none
This course provides students with the knowledge base for understanding basic electrical and electronic circuits, the use and recognition of standard terms and concepts, and application of Ohm's Law. The student will safely build circuits, and make tests on voltages, amperages, and resistances. The student will analyze situations based on technical information, interpret specialized vocabulary, demonstrate understanding of measurement accuracy and tolerances, and apply step-by-step procedures. Transfer Curriculum Goal(s): none

ATMP 1209 - Vehicle Service (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course covers basic principles of automotive systems, safety, hand tools, maintenance requirements, and basic automotive service procedures. Students will learn and follow correct procedures for servicing vehicles, shop safety, use of service manuals and bulletins, and interpretation of vehicle specifications. Tube flaring, fasteners bearings, seals and use of shop

equipment are discussed and utilized as applied to vehicle servicing. Transfer Curriculum Goal(s): none

ATMP 1212 - Introduction to Automobile Technology (3 credits)
Prerequisite: none *Corequisite:* none
This course introduces students to automotive careers. Students considering the automobile technician career field will have an opportunity to explore basic skills and education needed for the automotive occupation. In addition, principles of operation for automotive systems, shop safety and use of service information are emphasized. Transfer Curriculum Goal(s): none

ATMP 1219 – Brakes (3 credits)
Prerequisite: ATMP 1209 Vehicle Service and a minimum entry assessment score in reading *Corequisite:* none
This course includes basic principles of brakes, hydraulic system basics, disc and drum brakes, parking brakes and power assist units. Students will diagnosis and repair various types of braking systems, including anti-lock brake systems. Transfer Curriculum Goal(s): none

ATMP 1222 - Air Conditioning & Heating Systems (3 credits)
Prerequisite: ATMP 1275 Wiring and Electrical Diagnosis *Corequisite:* none
This course covers theory, principles, operation, diagnosis, and repair of Air Conditioning (AC) and Heating systems. Students will learn the differences between the various AC types, the diagnosis of control door operation and malfunctions. Lab activities include recycling refrigerant, testing for sealants, testing for refrigerant type, evacuating, replacement of components, charging, and performance testing. Transfer Curriculum Goal(s): none

ATMP 1223 - Engine Electrical & Accessories (6 credits)
Prerequisite: ATMP 1207 Basic Electricity and ATMP 1209 Vehicle Service *Corequisite:* none
This course covers the theory and operation of engine electrical systems. The student will read electrical schematics; diagnose and repair starting, charging, ignition, and fuel systems. In addition, the student will safely diagnose and repair optional equipment and accessories. Transfer Curriculum Goal(s): none

ATMP 1230 – Engines (6 credits)
Prerequisite: ATMP 1207 Basic Electricity, ATMP 1209 Vehicle Service and a minimum entry assessment score in reading *Corequisite:* none
This course introduces students to the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Transfer Curriculum Goal(s): none

ATMP 1243 - Drivetrain (3 credits)
Prerequisite: ATMP 1223 Engine Electrical & Accessories and ATMP 1230 Engines *Corequisite:* none
This course introduces students to the theory, operation, and repair of manual transmissions, transfer cases, transaxles, and differentials. In addition, students will safely perform basic diagnosis and repair of manual and hydraulic clutches using appropriate tools, equipment, procedures, and service information. Transfer Curriculum Goal(s): none

ATMP 1248 - Automatic Transmissions (6 credits)
Prerequisite: ATMP 1223 Engine Electrical & Accessories and ATMP 1230 Engines *Corequisite:* none
This course is designed to provide students with the basic knowledge in the diagnosis and repair of the automatic transmission. The student will develop skills necessary to perform in-car automatic transmission service. In addition, students will develop an understanding of the operation and service of torque converters, planetary gear trains and hydraulic components for front and rear-wheeled drive vehicles. In-car service, as well as, removal-installation and overhaul procedures will be stressed in the lab portion of this course. Transfer Curriculum Goal(s): none

ATMP 1255 - Fuel Systems (6 credits)
Prerequisite: ATMP 1275 Wiring and Electrical Diagnosis *Corequisite:* none
This course covers the theory and operating principles of automotive computers, sensors, and control devices for On Board Diagnostic (OBD) equipped vehicles. Students will develop skill in diagnosing, testing and correcting problems on OBD equipped vehicles. In addition, the course covers diagnosis and repair of fuel systems, including use of meters, and scan tools as well theory, operation and diagnosis of carbureted and fuel injection systems. They will use the Original Equipment Manufacturer (OEM) and generic scan tools and will document use of each scan tool during repairs. Transfer Curriculum Goal(s): none

ATMP 1261 - Alternative Fuels (1 credit)
Prerequisite: ATMP 1207 Basic Electricity *Corequisite:* none
This course explores the global impact of alternative fuels and vehicles. Students will be introduced to alternative vehicle designs. In addition, students will learn about biofuels and electric hybrid powered vehicle repair. Safety when repairing the electrical systems on electrical hybrid vehicles is emphasized. Transfer Curriculum Goal(s): none

ATMP 1265 - Chassis (6 credits)
Prerequisite: ATMP 1209 Vehicle Service and ATMP 1219 Brakes
Corequisite: none
This course includes basic principles of operation of chassis or suspension systems and wheel alignment factors. Students will test, diagnosis, service or replace various suspension and steering systems--chassis components. After completing repairs, students will perform vehicle alignments according to manufacturer instruction to be checked by instructor or designee. Transfer Curriculum Goal(s): none

ATMP 1275 - Wiring and Electrical Diagnosis (3 credits)
Prerequisite: ATMP 1223 Engine Electrical & Accessories , ATMP 1230 Engines *Corequisite:* none
This course reinforces and enhances the student's skills in automotive electrical troubleshooting. Topics include the servicing and repair techniques of chassis and electrical wiring, lights, and instruments. Additional topics include headlight aiming and how to read and interpret wiring diagrams. Students will be introduced to the use of scan tools for diagnosis of electrical malfunctions. Transfer Curriculum Goal(s): none

ATMP 1281 - General Shop (4 credits)
Prerequisite: ATMP 1265 Chassis and ATMP 1275 Wiring and Electrical Diagnosis *Corequisite:* none
This course enables students to specialize in one or more areas of automotive expertise. Students will consult with instructors to determine specialized or general repair projects. In addition, students will explore topics related to current shop practices. Transfer Curriculum Goal(s): none

ATMP 1289 - Scan Tools (3 credits)
Prerequisite: none *Corequisite:* none
This course covers vehicle electronics diagnosis and repair with Original Equipment Manufacturer (OEM) and Generic Scan Tools. Students will learn the intricacies of the various scan tools and utilize them to navigate screens to diagnose multiple processors. Transfer Curriculum Goal(s): none

Biology (BIOL)

BIOL 1217 - Nutrition and Wellness (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Math Concepts or equivalent assessment score *Corequisite:* none
This is a multi-disciplinary course designed to focus on various aspects of nutrition and provide a broad overview of the factors that impact personal and environmental wellness. Specifically, students will learn about energy requirements, body composition analysis, macro and micro nutrients, environmental toxicities, nutritional deficiencies, and nutrition as it relates to health and chronic disease treatment and prevention. In addition, students will explore the effects of human activity upon our society in relation to current food and environmental concerns. Topics may include environmental and nutritional implications of food processing, genetic modification, and current agricultural practices. Transfer Curriculum Goal(s): 10

BIOL 1240 - Health and Disease in the Human Body (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Math Concepts or equivalent assessment score *Corequisite:* none
This course is an introduces students to human anatomy and physiology. Students will learn basic disease processes and body systems including: integumentary, skeletal, muscular, nervous system, cardiovascular system, immune system, respiratory system, urinary system, and digestive system, endocrine and reproductive systems. The laboratory component emphasizes lecture content and includes dissections and experiments in physiology. Transfer Curriculum Goal(s): 3, 9

BIOL 1250 - General Biology I (4 credits)
Prerequisite: Placement determined by a college ready reading assessment score in reading and completion of MATH 0250 Math Concepts or equivalent assessment score *Corequisite:* none
This course presents students with the organic chemistry of life, cellular organization in plants and animals, diversity of cells from prokaryotic to eukaryotic systems, physics and chemistry of photosynthesis, chromosomal and molecular basis of inheritance, microbiology, genetics of viruses and bacteria, and introduces basic evolutionary processes. The lab component emphasizes lecture content and application of the scientific method. Transfer Curriculum Goal(s): 2, 3

BIOL 1251 - General Biology II (4 credits)
Prerequisite: BIOL 1250 General Biology l *Corequisite:* none
This course presents students with an introduction to living organisms with an emphasis on the basic mechanisms and concepts in organismal biology, ecology, and evolutionary biology. Topics include taxonomy and classification of the major groups of plants and animals, structure and function, development, and behavior. The lab component emphasizes lecture content and application of the scientific method. Transfer Curriculum Goal(s): 2, 3

BIOL 1255 - Microbiology (3 credits)
Prerequisite: BIOL 1250 General Biology l *Corequisite:* none
This course presents students with the classification, structure, and function of microbes. Emphasis is on disease-causing bacteria, viruses, protozoa, and fungi, physical and chemical methods of control, microbial genetics, host defenses, and applications in medicine. The lab component focuses on basic microbiology laboratory techniques: use of the microscope for viewing microbes, staining techniques, bacterial morphology and staining patterns, preparation of media culture, and microbial identification techniques. Transfer Curriculum Goal(s): 2, 3

BIOL 1260 - Human Anatomy and Physiology I (4 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human body or BIOL 1250 General Biology l *Corequisite:* none
This course introduces students to human anatomy and physiology. Students will learn tissues and body systems including: integumentary, skeletal, muscular, nervous, and endocrine systems. In addition, students will study integrated control mechanisms of physiology. The laboratory component includes dissections and experiments in physiology to emphasize lecture material. Transfer Curriculum Goal(s): 2, 3

BIOL 1270 - Human Anatomy & Physiology II (4 credits)
Prerequisite: BIOL 1260 Human Anatomy and Physiology I *Corequisite:* none
This course continues the study of body structure and function; incorporating principles of chemistry, biochemistry and molecular biology. Students will learn the cardiovascular, immune, respiratory, urinary, digestive, and reproductive systems. The lab component includes dissections and experiments in physiology to emphasize lecture material. This course builds on principles covered in Anatomy and Physiology I. Transfer Curriculum Goal(s): 2, 3

Business (BUSN)

BUSN 1110 - Introduction to Business (3 credits)
Prerequisite: Placement is determined by a college ready assessment score in reading *Corequisite:* none
This course provides an overview of the world of business. Students will learn about the environment of business, including the economic, political/legal, socio-demographic, global, technological, and competitive aspects and how they impact organizations. The various functional areas of business (management, marketing, and finance) will be examined. Transfer Curriculum Goal(s): none

BUSN 1119 - Directed Study in Business Computer Applications (1 credit)
Prerequisite: COCP 1201 Computer Concepts and Applications and/or Instructor Approval *Corequisite:* none
This course allows students to develop competency in the use of internet and e-mail software as it relates to the business environment. Students will learn to retrieve, evaluate, and synthesize information from the internet as well as how to use e-mail software to produce professional, effective communication in a business environment. Computer security and safety, ethics, and privacy concerns related to technology will also be integrated throughout the course. Transfer Curriculum Goal(s): none

BUSN 1120 - Business Computer Applications (3 credits)
Prerequisite: Placement is determined by a college ready assessment score in reading *Corequisite:* none
This course introduces computer terminology, hardware, and software as it relates to the business environment. Students will learn business productivity software applications such as word processing, spreadsheets, databases, and presentation graphics, as well as business-oriented internet use and the principles of professional behavior in computing. Transfer Curriculum Goal(s): none

BUSN 1130 - Human Relations in Business (3 credits)
Prerequisite: Placement is determined by a college ready assessment score in reading *Corequisite:* none
This course introduces human relations principles, methods, and skills applicable to management effectiveness and career success. Students will learn about principles and methods of organizational communication, professionalism, motivation, team building, conflict resolution, leadership, negotiation, cultural differences, and personal communication. Practical

application and development of skills in these areas are emphasized throughout the course. Transfer Curriculum Goal(s): none

BUSN 1140 - Business Information Systems (3 credits)
Prerequisite: Placement is determined by a college ready assessment score in reading *Corequisite:* none
This course introduces students to computer-based information systems within business organizations. Students will learn the strategic and administrative roles of information systems in business and explore the applications of computers and information technology to advance the efficiency and effectiveness of individuals, groups, and organizations. Transfer Curriculum Goal(s): none

BUSN 1150 - Data Analytics for Business (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces students to data analysis techniques and their application in business using Microsoft Excel, the primary quantitative analysis software in business environments. Students will learn basic to advanced features in Microsoft Excel: create and manage worksheets and workbooks, create charts and objects, perform operations with formulas and functions, apply custom data formats and layouts, create and manage Pivot Tables and Pivot Charts, and build dynamic dashboards. Transfer Curriculum Goal(s): none

BUSN 2210 - Legal Environment of Business (3 credits)
Prerequisite: Placement is determined by a college ready assessment score in reading *Corequisite:* none
This course introduces students to the fundamentals of the court and legal system. Students will explore property law, contracts, uniform commercial code, agency, employer/employee relationships and negotiable instruments. In addition, students will study the legal aspects of the different forms of business partnership, corporations, and legal liability companies. Transfer Curriculum Goal(s): none

BUSN 2220 - Principles of Marketing (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisites:* none
This course will explore the principles of marketing strategy planning, including target market and marketing mix variables, with emphasis on key strategy decisions in each area. Students will learn organizational marketing activities including consumer behavior, marketing research, social/cultural

perspectives, legal and ethical issues, and environmental influences. The course will also cover implementation, control, marketing's link with other functional areas, and the challenges and opportunities that exist for marketers. Transfer Curriculum Goal(s): none

BUSN 2230 - Principles of Management (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisites:* none
This course is a comprehensive study of managerial functions (planning, organizing, leading, and controlling) for the purpose of achieving organizational goals. Students will learn about motivation, leadership, organizational structure, team dynamics, decision-making, ethics, social responsibility, and global competition. Transfer Curriculum Goal(s): none

College Career and Professional Development (CCPD)

CCPD 1010 - Success Strategies for College & Professional Development (2 credits)
Prerequisite: none *Corequisite:* none
This course is designed to assist students in exploring and developing the academic skills necessary to succeed in college and as a self-directed, life-long learner as well as the personal skills to manage their college life and set them up for success in their future careers. Students will be introduced to college and community resources and tools for academic success, including skills in stress management, financial literacy, critical thinking and creative problem solving. They will develop their ability to articulate their long term goals; and they will demonstrate appreciation for diversity and understanding of self as civic and global citizens. Transfer Curriculum Goal(s): 2

CCPD 1200 - Advanced Career Exploration (1 credit)
Prerequisite: none *Corequisite:* none
This course is designed to help students explore career and educational options. Using a variety of career planning resources, students will explore the world of work, and assess their individual strengths, interests, values and personality. Students will develop a career plan integrating their knowledge of self and the global work world with the career decision-making process. Transfer Curriculum Goal(s): none

Early Childhood Development (CDEV)

CDEV 1200 - Introduction to Early Childhood Education (3 credits)
Prerequisite: Placement is determined by a minimum entry level assessment score in reading *Corequisite:* none
This course provides an overview of the early childhood field, including philosophies, missions, and regulations. Students will examine the roles, responsibilities and job requirements of professionals in a variety of career settings, positive communication and relationships with families. Transfer Curriculum Goal(s): none

CDEV 1210 - Child Growth and Development (3 credits)
Prerequisite: Placement is determined by a minimum entry level assessment score in reading *Corequisite:* none
This course examines the major developmental milestones for children, both typical and atypical, from conception through adolescence in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development. While studying developmental theory and investigative/observational research methods, students will observe children and analyze characteristics of development at various stages. The course emphasizes interactions between maturational processes and environmental factors. Transfer Curriculum Goal(s): none

CDEV 1222 - Health, Safety and Nutrition (3 credits)
Prerequisite: none *Corequisite:* none
This course is an introduction to the regulations, standards, policies, and procedures, prevention techniques, and early childhood curriculum related to health, safety, and nutrition. Students will identify components that ensure physical health, mental health, and safety for both children and staff, as well as the importance of collaboration with families and health professionals. A focus will be on integrating the concepts into everyday planning and program development. Transfer Curriculum Goal(s): none

CDEV 1230 - Positive Child Guidance (3 credits)
Prerequisite: none *Corequisite:* none
This course examines positive strategies to guide children's behavior in the early childhood setting. Students will examine ways to establish supportive relationships with children and guide them, in order to enhance learning, development, and well-being. Transfer Curriculum Goal(s): none

CDEV 1240 - Working with Diverse Families and Children (3 credits)
Prerequisite: Placement is determined by a minimum entry level assessment score in reading *Corequisite:* none
The course examines the relationship between the educator and the child's family. Students will explore strategies to maintain an open, friendly, and cooperative relationship with families, involving families in early care and education programs and effectively conducting parent-teacher conferences. Community organizations and networks that support families will be identified. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Transfer Curriculum Goal(s): none

CDEV 1252 - Observation and Assessment (3 credits)
Prerequisite: CDEV 1210 Child Growth and Development and CDEV 1230 Positive Child Guidance *Corequisite:* none
This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing developmental characteristics and increasing the awareness of normal patterns of behavior. Transfer Curriculum Goal(s): none

CDEV 1270 - Infant-Toddler Development and Learning (3 credits)
Prerequisite: CDEV 1210 Child Growth and Development *Corequisite:* none
This course covers infant/toddler theory and development in home or center-based settings. Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective care giving, teaching strategies and observation methods. Transfer Curriculum Goal(s): none

CDEV 1290 - Special Topics (1-4 variable credits)
Prerequisite: Instructor Permission; *Corequisite:* none
This course provides an opportunity for students to apply knowledge and skills in an actual child care or early education setting. Students will design course goals along with the instructor on targeted areas of knowledge and skill development. Instructor Permission required. Offered On Demand. Transfer Curriculum Goal(s): none

CDEV 1340 - Learning Environment and Curriculum (4 credits)
Prerequisite: CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, and CDEV 1230 Positive Child Guidance
Corequisite: none
This course presents an overview of knowledge and skills related to providing appropriate curriculum and environments for young children. Students will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interests, and ways to implement the principles of developmentally appropriate practices. An overview of content areas including (but not limited to): physical/motor experiences, language and literacy, social and emotional learning, sensory learning, art and creativity, math and science will be covered. Transfer Curriculum Goal(s): none

CDEV 2510 - Practicum I (3 credits)
Prerequisite: CDEV 1200 Introduction to Early Childhood Education, CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, CDEV 1230 Positive Child Guidance, CDEV 1340 Learning Environment and Curriculum and Instructor Permission *Corequisite:* none
Students demonstrate early childhood teaching competencies under guided supervision to make connections between theory and practice and developing professional behaviors. Students apply comprehensive understanding of children and families, developmentally appropriate, child-centered, play-oriented approaches to teaching and learning, and knowledge of curriculum content areas. They design, implement, and evaluate experiences that promote positive development and learning for all young children. Transfer Curriculum Goal(s): none

CDEV 2530 - Children with Challenging Behaviors (3 credits)
Prerequisite: CDEV 1200 Introduction to Early Childhood Education, CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, CDEV 1230 Positive Child Guidance *Corequisite:* none
This course will help students understand children's behavior problems and challenges and identify intervention strategies to prevent and resolve problem behavior, use behavior modification effectively and design behavior plans. Transfer Curriculum Goal(s): none

CDEV 2610 - Organizational Leadership and Management (2 credits)
Prerequisite: CDEV 1200 Introduction to Early Childhood Education, CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, CDEV 1230 Positive Child Guidance, CDEV 1340 Learning Environment and Curriculum, CDEV 1252 Observation and Assessment,

CDEV 2640 Working with Diverse Families and Children *Corequisite:* none
The student will discuss personal and professional reasons for becoming a teacher, ways to advocate in this profession and will develop a plan for continuous education and professional development. Students will improve skills in working with others demonstrating strategies for team building, coping with stress, problem-solving, utilizing professional ethics and procedures for evaluating staff. Transfer Curriculum Goal(s): none

CDEV 2620 - Children with Differing Abilities (3 credits)
Prerequisite: CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, and CDEV 1230 Positive Child Guidance
Corequisite: none
This course examines the child with differing abilities in an early childhood setting. Students will integrate strategies that support diversity and anti-bias perspectives, provide inclusive programs for young children, apply legal and ethical requirements including, but not limited to ADA and IDEA, differentiate between typical and exceptional development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders, work collaboratively with community and professional resources, utilize an individual education plan, adapt curriculum to meet the needs of children with developmental differences, and cultivate partnerships with families who have children with developmental differences. Transfer Curriculum Goal(s): none

CDEV 2640 - Curriculum Planning (3 credits)
Prerequisite: CDEV 1210 Child Growth and Development, CDEV 1222 Health, Safety and Nutrition, CDEV 1230 Positive Child Guidance, CDEV 1340 Learning Environment and Curriculum *Corequisite:* none
This course provides an advanced level exploration of curriculum planning and management skills. Students will integrate their knowledge of developmental needs, developmentally appropriate environments, practices, curricula and teaching methods to organize, implement, and evaluate quality, comprehensive curricula. Curricula models from both within and outside the United States will be explored. Transfer Curriculum Goal(s): none

CDEV 2810 - Practicum II (3 credits)
Prerequisite: CDEV 2510 Practicum l, CDEV 1252 Observation and Assessment, CDEV 2640 Curriculum Planning, and Instructor Permission
Corequisite: none
This course provides an opportunity to apply knowledge and skill in an early childhood setting. Students implement a variety of learning experiences that are developmentally appropriate for and culturally sensitive to a specific age and group of children. Transfer Curriculum Goal(s): none

Chemistry (CHEM)

CHEM 1210 - Concepts of Chemistry (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0365 Algebra Concepts or equivalent assessment score *Corequisite:* none
This course is a broad introduction to chemistry. It is intended for the non-science major. No previous chemistry experience is required. The course emphasizes the scientific method and introduces basic concepts and principles of chemistry including measurement, general properties of matter, atomic structure and theory, periodic properties, chemical bonding and nomenclature, molecular structure, chemical reactions and equations, the use of the mole, molar calculations, stoichiometry, solutions, acids and bases, and the behavior of gases. This course includes lab experiences that emphasize observation, collection, organization, and analysis of data with appropriate significant figures and units. Transfer Curriculum Goal(s): 3

CHEM 1250 - Principles of Chemistry I (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0365 or equivalent assessment score
Corequisite: none
This is the first course in a two-semester sequence for General Chemistry. This course introduces students to the basic concepts of chemistry. Students will learn measurement, quantum theory and structure, the mole, periodic properties of the elements, chemical bonding, chemical nomenclature, molecular structure, chemical reactions and equations, enthalpy changes associated with chemical reactions, stoichiometry, introduction to solutions and molarity, and the behavior of gases. Quantitative laboratory experiments will emphasize observation, organization of data, and data analysis. This course is intended for students who need to fulfill a course in general chemistry for a variety of majors including liberal arts requirements, nursing, and health science. Transfer Curriculum Goal(s): 2, 3

CHEM 1251 - Principles of Chemistry II (4 credits)
Prerequisite: CHEM 1250 Principles of Chemistry I *Corequisite:* none
This is the second course in a two-semester sequence for General Chemistry. Students will learn chemical concepts including intermolecular forces, solid state structure, properties of solutions, acids and bases, chemical kinetics, chemical equilibria, chemical thermodynamics, electrochemistry, and nuclear chemistry. Quantitative laboratory experiments will emphasize observation, organization of data, and data analysis. Transfer Curriculum Goal(s): 2, 3

360° Production Technologies (CMAE)

CMAE 1502 - Technical Mathematics (3 credits)
Prerequisite: Accuplacer scores of 45 in Arithmetic and 52 in reading or Next Gen Accuplacer scores of 237 in Arithmetic and 234 in reading or higher
Corequisite: none
This is an introductory technical math course. The course is for students who have basic math skills and for those who need basic technical math concepts. The primary goals of this course are to help individuals acquire a solid foundation in the algebra and geometry used in a technical setting. This course will show how these skills can model and solve authentic real-world problems. Transfer Curriculum Goal(s): none

CMAE 1506 - Introduction to Computers (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This is an introductory course in Microsoft Office computer applications for technical fields. The primary goal of this course is to help individuals acquire a hands-on working knowledge of current personal computer applications including word-processing, spreadsheets, database, presentation, and internet browser software. Transfer Curriculum Goal(s): none

CMAE 1510 - Print Reading (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course will give students an understanding of basic mechanical drawing principles. Topics include the alphabet of lines, arrangement of views, orthographic projections, scaling, dimensioning, tolerancing, and symbols. Students will read and interpret mechanical drawings. Transfer Curriculum Goal(s): none

CMAE 1514 - Safety Awareness (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course aligns with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Safety. The curriculum is based upon federally-endorsed national standards for production workers including Occupational Safety Health Association (OSHA) standards relating to personal protective equipment, Hazardous Material (HAZMAT), tool safety, confined spaces, and others. Transfer Curriculum Goal(s): none

CMAE 1518 - Manufacturing Processes & Production (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course aligns with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Manufacturing Processes. This curriculum is based upon federally-endorsed national standards of production workers emphasizing lean manufacturing principles, basic supply chain management, communication skills, and customer service. Transfer Curriculum Goal(s): none

CMAE 1522 - Quality Practices (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course aligns with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Quality Practices. The curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on Continuous Improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components including, corrective actions, preventative actions, control of documents, control of quality records, internal auditing or processes, and control of non-conforming product. Transfer Curriculum Goal(s): none

CMAE 1526 - Maintenance Awareness (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course aligns with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Maintenance Awareness. The curriculum is based upon federally-endorsed national standards for production workers. The course introduces the concepts of total productive maintenance and preventative maintenance with the fundamental principles

of lubrication, electricity, hydraulics, pneumatics, and power transmission systems. Transfer Curriculum Goal(s): none

CMAE 1528 - Career Success Skills (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This is an introductory career success skills course. The primary goal of this course is to help individuals acquire a solid foundation in basic skills for a successful career. This course will identify the skills important to businesses and help the student assess their level of skill. The course will provide suggestions for how the student can improve level of skill. Transfer Curriculum Goal(s): none

CMAE 1530 - 360 Degree Machining Math (2 credits)
Prerequisite: CMAE 1502 Technical Mathematics *Corequisite:* none
This course is designed for students in a machine shop environment. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills of math that relate directly to the machine shop and industrial manufacturing. This course will show how these skills can model and solve authentic real-world problems. Transfer Curriculum Goal(s): none

CMAE 1532 - Machine Tool Print Reading (2 credits)
Prerequisite: CMAE 1510 Print Reading *Corequisite:* none
This course covers the principles of mechanical print reading. Course includes sketching, lines, dimensioning and tolerancing, and single/multi-view drawings. Transfer Curriculum Goal(s): none

CMAE 1534 - Machine Tool Technology Theory (2 credits)
Prerequisite: CMAE 1530 Machining Math and CMAE 1532 Machine Tool Print Reading *Corequisite:* none
This course will address the machining theory related to the safety and operation of basic machine tools including: drill press, vertical milling machine, engine lathe, precision and non-precision grinders, saws and precision measuring equipment. This is a blended on-line course utilizing Tooling “U” and D2L. Transfer Curriculum Goal(s): none

CMAE 1536 - Machine Tool Technology Lab I (2 credits)
Prerequisite: CMAE 1534 Machine Tool Technology Theory *Corequisite:* none
This course will address the setups and operation of a drill press, grinder, vertical milling machine, engine lathe, and saws. Machine safety, machine component identification, as well as turning, milling, sawing, bench work, drilling and single-point tool grinding projects are also included in the

components listed above. In addition, students will learn the care and use of inspections and layout tools. Transfer Curriculum Goal(s): none

CMAE 1538 - Machine Tool Technology Lab II (2 credits)
Prerequisite: CMAE 1536 Machine Tool Technology Lab I *Corequisite:* none
This course will address the advanced operations of a drill press, vertical milling machine, engine lathe, surface grinder and saws. Machine safety, as well as turning, milling, sawing, drilling, and surface grinding projects are also included in the components listed above. The student will also learn the care and use of high precision measuring equipment. Transfer Curriculum Goal(s): none

CMAE 1540 - Introduction to CNC (3 credits)
Prerequisite: CMAE 1536 Machine Tool Technology Lab I *Corequisite:* None
This online course is an introduction to Computer Numeric Controlled (CNC) Machining. The focus on CNC machining centers and will include the history of CNC machining, G & M codes, programming, set-up and operating procedures. Transfer Curriculum Goal(s): none

CMAE 1542 - Geometric Dimensioning and Tolerancing (2 credits)
Prerequisite: CMAE 1532 Machine Tool Print Reading *Corequisite:* None
Students will engage in learning how to read prints with Geometric Dimensioning and Tolerancing applications. Each of the geometric controls will be examined so the student may determine the allowable variation in form and size between part features. The Y 14.5 M standard will be part of the overall instruction. Using precision equipment most of the geometric controls will be inspected to print specifications. Transfer Curriculum Goal(s): none

CMAE 1550 - DC Power (3 credits)
Prerequisite: CMAE 1502 Technical Mathematics or a college ready assessment score in Math *Corequisite:* none
This course cover the basic principals in DC electric circuits including series, parallel and complex circuit analysis, Ohm's Law, meters, conductors, insulators, resistors, batteries, and magnetism. The use and understanding of test equipment for circuit analysis stressed. Transfer Curriculum Goal(s): none

CMAE 1552 - AC Power (3 credits)
Prerequisite: CMAE 1514 Safety Awareness and CMAE 1550 DC Power
Corequisite: None
This course covers investigation of alternating current and its behavior in resistive, inductive and reactive series, parallel, and series/parallel circuits; use of test instrumentation; and electromagnetic induction. Transfer Curriculum Goal(s): none

CMAE 1554 - Digital Electronics (3 credits)
Prerequisite: CMAE 1502 Technical Mathematics or a college ready assessment score in Math *Corequisite:* none
This is a first course in Digital Electronics. The primary goals of this course are to help individuals acquire a fundamental knowledge of digital electronics, Boolean algebra, digital devices, analog to digital conversion and digital to analog conversion, and how to apply their knowledge and skills through problem solving, simulation and practical projects. Transfer Curriculum Goal(s): none

CMAE 1556 - Analog Circuits (3 credits)
Prerequisite: none *Corequisites:* CMAE 1550 DC Power, CMAE 1552 AC Power and CMAE 1554 Digital Electronics
This course covers diodes, power supplies, transistor operation, biasing, and specifications along with amplifier configuration and applications. It also covers operational amplifier operations, applications, and related circuitry. Troubleshooting, design, and circuit analysis are emphasized. Transfer Curriculum Goal(s): none

CMAE 1558 - Motor Controls (3 credits)
Prerequisite: CMAE 1514 Safety Awareness and CMAE 1550 DC Power
Corequisite: CMAE 1552 AC Power
This course introduces the learner to motor control components and provides them with a basic knowledge of control circuitry. The learner will build on his/her experiences for basic electricity by designing, building, and troubleshooting more complex circuits. Devices such as contactors, motor-starters, relays, timers, mechanical, and proximity switches are used. Electronic motor controls and programmable devices such as variable frequency drives are introduced. Transfer Curriculum Goal(s): none

CMAE 1560 - Interpreting Symbols (2 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
Welding symbols are used to facilitate communication among the designer, fabricator, and inspection personnel. To accurately layout and fabricate parts, the welder will need basic knowledge of working drawings and their significance to the welding industry. Students will break down welding prints to develop skills necessary to fabricate individual component parts of welded structures. Written and fundamental tests will be administered in accordance with the American Welding Society (AWS) standards and the appropriate correlating code books (AWS A2.4). Transfer Curriculum Goal(s): none

CMAE 1562 - Oxyfuel Welding and Cutting Process (3 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course covers the use of oxy-fuel equipment while welding, cutting, brazing, and using the Plasma Arc Cutting (PAC) and Air Carbon Arc Cutting (CAC-A) processes. There will also be an introduction into laser cutting equipment. A very important part of this course will be discussing safety as it relates to the thermal welding and cutting equipment. Time will be spent in the lab developing skills using the thermal welding and cutting processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Cuts will be made in the flat and horizontal positions. Written and Fundamental tests will be done in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

CMAE 1564 - Shielded Metal Arc Welding (SMAW) (3 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
Students will study and demonstrate safety practices with Shielded Metal Arc Welding (SMAW). Students will also be introduced to the types of power sources used for arc welding, process applications, electrode selections, overview of weld types, and other work-related safety conditions in the welding field. Time will be spent in the lab developing skills utilizing SMAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and fundamental tests will be completed in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

CMAE 1566 - Gas Metal Arc Welding (GMAW) / Flux Cored Arc Welding (FCAW) (3 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
Students will study and demonstrate safety practices with Gas Metal Arc Welding (GMAW) and Flux Cored Arc Weld (FCAW). The GMAW and FCAW processes will be discussed in depth including to the different type of modes of transfer available, shielding gases, and the different types of materials that can be welded. The differences in the electrode types of gas-shielded wires and self-shielded wires will be discussed along with the types of shielding gases that are used. There will be discussions on the importance of how the welding process intersects with the arc welding symbols and codes. There will also be a review of procedures used in visual inspections of welds. Time will be spent in the lab developing skills using the GMAW and FCAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and fundamental tests will be completed in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

CMAE 1568 - Gas Tungsten Arc Welding (GTAW) (3 credits)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course covers the safety hazards and applications for Gas Tungsten Arc Welding (GTAW) in the welding industry. Material covered will be power sources, setup, types of current, current selection, shielding gases and torch types. Procedures and potential problems welding different metals (Aluminum, Stainless Steel, and Mild Steel) will be addressed in this course. Applications for the process in different industries, as well as the use of back purging will be discussed. Welds will be made in the flat, horizontal, vertical and overhead positions. Written and Fundamental tests will be completed in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

CMAE 1570 - Metallurgy and Mechanical Properties of Materials (1 credit)
Prerequisite: Accuplacer score of 52 or Next Gen Accuplacer score of 234 in reading or higher *Corequisite:* none
This course covers the study of metals and how the effects of welding and heat treatments on them. Metallurgical terminology will be an important part of the course. Physical and mechanical properties of ferrous and nonferrous metals will be covered along with the classifications of different types of metals. The range of materials and their usefulness in particular applications will be discussed. Written tests will be completed in accordance

with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

Communications (COMM)

COMM 1100 - Introduction to Communication (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course investigates the processes of interpersonal and small group communication and the practices of public speaking. Students will examine theories of communication and participate in various forms of interpersonal, small group, and public communication. Along with the emphasis on communication studies, students will develop their skills of communicating with others, thinking critically, organizing ideas clearly, and speaking, presenting, and listening effectively. Transfer Curriculum Goal(s): 1, 2

COMM 1120 – Interpersonal Communications (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course focuses on communicating more effectively in personal, social, and professional environments and examining the practical and theoretical aspects of human communication. The course also addresses such topics as self-esteem, listening, effective language, nonverbal communication, perception, disclosure, conflict and cultural communication. Human diversity issues and cultural/intercultural factors and how they affect human communication are examined. Students will also reflect on the role interpersonal process plays in relationships and reflect on individual strengths and weaknesses with regard to personal interpersonal communication. Transfer Curriculum Goal(s): 1,7

COMM 1250 - Information Trends and Society (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
In this class, students will explore the reciprocal relationship between information technology and society through group discussion, research, and writing. It will begin by situating information technology within key sociological theories of technological development, using them as lenses to explore information technology's role as motivator of societal change throughout history. Students will then critically evaluate the ethical, political, and legal dimensions of current and emergent trends in information technology. Topics covered will include: literacy and information literacy,

digital divides, social media, privacy and anonymity, the politics of gaming, and many more. Transfer Curriculum Goal(s): 1, 9

COMM 2100 - Intercultural Communication (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course investigates the theories and processes of intercultural communication. Students will explore the elements of culture, variations in cultural dimensions that affect communication, global cultural patterns, prevailing belief and value systems, international issues, methods of successful intercultural communication, and an examination of human diversity both internationally and within American culture. Transfer Curriculum Goal(s): 1, 7

Computer & Information Sciences (COCP)

COCP 1201 - Computer Concepts and Applications (2 credits)
Prerequisite: none *Corequisite:* none
This course provides an introduction to computer concepts and applications commonly used in college. Topics include basic hardware components, use of email and the internet and on online safety, operating systems and file systems, cloud storage, word processing and formatting, spreadsheets and charts, and presentation software. Transfer Curriculum Goal(s): none

COCP 1209 - Workstation Operating System (3 credits)
Prerequisite: Placement is determined by minimum entry level assessment scores in reading *Corequisite:* none
In this course, students learn to install, configure, administer, and support the current version of Microsoft Windows workstation operating system (OS). Topics covered include: workstation installation, user management and permissions, file system management, and print services. In advanced workstation configuration and connection, troubleshooting, and network support are also covered. Transfer Curriculum Goal(s): none

COCP 1210 - Help Desk Concepts (1 credit)
Prerequisite: COCP 1209 Workstation Operating System *Corequisite:* none
This course is designed to provide students with an understanding of the help desk environment and the knowledge, skills, and abilities necessary to work in the user support industry. It is useful for both the person who is starting out in the user support industry, as well as the person who is an experienced professional. The course places an emphasis on problem solving and communication skills, in addition to the technical aspects of user

support. Through hands-on exercises and case projects, students apply their knowledge and develop their ideas and skills. Class discussion topics include help desk concepts, processes and procedures, tools and technologies, performance and measures, and customer support strategies. Students work individually and in teams to prepare them for today's team-oriented work environment. Transfer Curriculum Goal(s): none

COCP 1211 - Network Security (3 credits)
Prerequisite: COCP 1212 Networking Fundamentals *Corequisite:* none
In this course, students learn general security concepts including authentication methods, cryptography basics, and reorganizing how to safeguard against common network attacks. Students will learn to create secure communications for remote access, e-mail, the Internet, directory and file transfer, and wireless communications. In addition, students will develop an appreciation for and plan for the implementation of physical security and disaster recovery. Transfer Curriculum Goal(s): none

COCP 1213 - Introduction to Programming (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course provides an introduction to programming computers. Students will be introduced to programming concepts using a general-purpose programming language and will create simple programs with graphical user interfaces. Advanced system programming is explored. Students will create script files to handle administrative tasks in the Windows operating system. This course is suitable for students wishing to explore the computer programming field. Transfer Curriculum Goal(s): none

COCP 1220 - Network Administration 1 (3 credits)
Prerequisite: Computer application proficiency *Corequisite:* none
This course introduces students to networking concepts, technologies, and typical network administration duties found in the workplace. Students will learn communication models, network protocols, IP addressing and subnetting, physical and logical topologies for local area networks (LAN) and wide area networks (WAN), transmission media, and basic router and switch configuration. Transfer Curriculum Goal(s): none

COCP 1221 - Network Administration 2 (3 credits)
Prerequisite: COCP 1220 Network Administration 1 *Corequisite:* none
In this course, students explore switching and routing architectures used to support and secure local area networks (LANs) and virtual local area networks (VLANs). Students will configure networks and resolve common

issues with protocols in both IPv4 and IPv6 networks. Transfer Curriculum Goal(s): none

COCP 1222 - Network Administration 3 (3 credits)
Prerequisite: COCP 1221 Network Administration 2 *Corequisite:* none
In this course, students advance their knowledge of router and switch operations. Students will configure wireless local area networks (WLANs), implement dynamic routing, troubleshoot neighbor adjacencies, filter traffic using access control lists (ACLs), and configure different types of Network Address Translation (NAT) methods. Transfer Curriculum Goal(s): none

COCP 1223 - Network Administration 4 (3 credits)
Prerequisite: COCP 1222 Network Administration 3 *Corequisite:* none
This course focuses on enterprise networking, security, network management, virtualization, and automation. Students will configure wide area network (WAN) connections, implement IP security (IPsec) to secure virtual private networks (VPNs), monitor network operations, and prioritize network traffic. Students will explore the virtualization of network devices and the software used to automate enterprise network operations. Transfer Curriculum Goal(s): none

COCP 1224 - CCNA Exam Prep (2 credits)
Prerequisite: COCP 1223 Network Administration 4 *Corequisite:* none
Cisco Certified Network Associate (CCNA) exam covers networking fundamentals, IP services, security fundamentals, automation and programmability. Designed for agility and versatility, CCNA validates that you have the skills required to manage and optimize today's most advanced networks. Transfer Curriculum Goal(s): none

COCP 1250 - Computer Hardware Support (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
In this course, students learn to support personal computer (PC) hardware. Students will investigate how hardware is installed and operates in relationship with the software used to support that hardware. Topics include the installation, configuration, support, and troubleshooting of system boards; CPUs; memory; video connections; floppy, optical, and hard drives; multimedia; and input/output devices. Transfer Curriculum Goal(s): none

COCP 1251 - Computer Software Support (3 credits)
Prerequisite: Placement is determined by minimum entry level assessment scores in reading *Corequisite:* none
In this course, students learn to support personal computer (PC) software. Students will investigate how software is installed and operates in relationship with the hardware used to support that software. Topics covered include the installation, configuration, support, software troubleshooting, operational procedures, security, and best practice procedures. Transfer Curriculum Goal(s): none

COCP 1253 - Microsoft Server Operating System I (3 credits)
Prerequisite: COCP 1209 Workstation Operating Systems *Corequisite:* none
This course provides students with the knowledge and skills necessary to install and configure a Microsoft Windows server and perform post-installation and day-to-day administrative tasks of an Active Directory domain. Students will gain an understanding of the Active Directory structure, users and groups, distributed files systems, resource permissions, remote access, server optimization, maintenance and troubleshooting, and user technical support. Transfer Curriculum Goal(s): none

COCP 1278 - Data Structures in C (3 credits)
Prerequisite: COCP 1237 Java Programming II *Corequisite:* none
This course is an exploration of creating data structures in the C and C++ languages. Students will learn about arrays, structures, memory allocation, pointers, and file handling. Students will use classes and data abstraction, inheritance, polymorphism, operator overloading, templates and exception handling, along with linked lists, stacks, queues and binary trees. Proper coding style and testing techniques will be discussed. In addition, C++ will be compared to its predecessor language C and a successor language, Microsoft's C#. Transfer Curriculum Goal(s): none

COCP 2204 - Windows Server Administration (3 credits)
Prerequisite: COCP 1253 Microsoft Server Operating System
Corequisite: none
In this course, students acquire the advanced system administration skills necessary to manage Windows Server. They will learn to deploy and maintain servers, configure advanced file services, implement remote access and network access protection, set group policies, deploy and administrate Active Directory, and configure and troubleshoot Domain Name Service (DNS). In addition, students reinforce their learning with real world labs and projects. Transfer Curriculum Goal(s): none

COCP 2230 - Linux Administration (3 credits)
Prerequisite: COCP 1212 Networking Fundamentals *Corequisite:* none
In this class, students learn to install, configure, maintain, administrate, and use features of the Linux operating system. By learning the Linux operating system, students will have a fundamental understanding of Unix. In addition, students will learn to download and install applications, configure users, groups and permissions, managing the various file systems, running Windows emulation, and the role of Linux in the enterprise network environment. Transfer Curriculum Goal(s): none

COCP 2250 - Computer and Information Security (3 credits)
Prerequisite: COCP 1253 MS Server Operating *Corequisite:* none
This vendor-neutral course provides a comprehensive overview of network security, including general security concepts, communication security, infrastructure security, cryptography basics, and operational/organizational security. Lab exercises utilize server computers to gain real-world practice at securing networks--from ensuring authentication, configuring a VPN server, installing Service Packs and Hot Fixes, to securing applications such as e-mail, Web activity, and file transfer. The course will also include a section on how to educate and work with non IT-managers about the importance of locking down a network and systems connected to it. Transfer Curriculum Goal(s): none

COCP 2258 - Project Management (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course will introduce students to the processes of project planning from the early stages of brainstorming through planning. This includes creating timetables, managing resources, project implementation, along with the basics of writing project proposals. Students learn to select appropriate project planning techniques and software. During this course they will plan and propose a project appropriate to their fields of study. Transfer Curriculum Goal(s): none

Construction Technology (CONS)

CONS 1100 - Introduction to Construction Careers (2 credits)
Prerequisite: none *Corequisite:* none
This course exposes students to a range of potential construction and building technology careers to consider pursuing upon completion of this program. Students will be introduced to core career paths such as framing and general construction, mechanical (heating, cooling, and refrigeration), electrical, and plumbing. In addition to these core trades the course also exposes students to allied construction disciplines in engineering, architecture, modular and manufactured building, and other specialized trades. Transfer Curriculum Goal(s): none

CONS 1200 - Principles of Carpentry and Tool Safety (3 credits)
Prerequisite: none *Corequisite:* none
This course teaches students the foundational principles of safe construction of wood structures. Students will learn material sourcing, processing, tool functions, tool and equipment safety, and production. As an introductory course, students will focus on constructing wood projects to build competency and confidence in carpentry skills. Transfer Curriculum Goal(s): none

CONS 1250 - Building Plans, Specifications, and Codes (2 credits)
Prerequisite: none *Corequisite:* none
This course introduces students to the features and use of construction documents. Students will learn the general use and function of architectural drawings, building specifications and site plans. Students will also become familiar with the function of building codes and how these inform and impact the various construction and building technology fields. Transfer Curriculum Goal(s): none

CONS 1300 - Introduction to Building Systems (4 credits)
Prerequisite: CONS 1100 Introduction to Construction Careers
Corequisite: none
This course provides students with an introduction to key building systems installed by the construction trades. Students will learn the baseline functions of carpentry, plumbing, electrical, and mechanical systems, and how they create a building system together. Final selection of a chosen trade path for the second year site-based learning internship will be made during this course. Transfer Curriculum Goal(s): none

CONS 2100 - Construction Internship 1 (4 credits)
Prerequisite: CONS 1300 Introduction to Building Systems and Instructor Permission *Corequisite:* none
In this course students will be introduced to the expectations of on-site work experiences. The course is broken into 2 (two) parts – the first with an instructor from the program in a structured building experience, and the second with one the program's local trade partner(s) aligned with their preferred (or similar) construction trade. The course is structured as an introductory jobsite work experience meant to teach trade-specific skills as well as more general work-related expectations (work ethic, proactivity, timeliness, and problem solving) common within the construction industry. Transfer Curriculum Goal(s): none

CONS 2150 - Construction Internship 2 (4 credits)
Prerequisite: CONS 2100 Construction Internship 1 and Instructor Permission *Corequisite:* none
This internship exposes students to jobsite expectations and skills needed to work within their preferred (or similar) construction trade. Students will intern with the program's local trade partners to gain trade experience and to build employer references. The internship will be tailored to reinforce carpentry and building systems skills that will help students contextualize course content through field-based learning experiences. The internship will focus on students learning trade-specific knowledge and hard skills. Transfer Curriculum Goal(s): none

CONS 2200 - Construction Internship 3 (4 credits)
Prerequisite: CONS 2150 Construction Internship 2 and Instructor Permission *Corequisite:* none
This internship further exposes students to jobsite expectations and skills and will introduce students to the project/business management side of their preferred (or similar) trade. Students will intern with the program's local trade partners to gain trade experience and to build employer references. The internship will be tailored to support the students' 2230 Capstone Project Planning course. The internship will continue to teach students trade-specific knowledge and hard skills and will introduce students to client interaction, budgets/estimating, and project planning. Transfer Curriculum Goal(s): none

CONS 2230 – Capstone Project Planning (3 credits)
Prerequisite: CONS 2100 Construction Internship 1 *Corequisite:* none
This course introduces students to the fundamentals of construction project planning. Students will learn physical planning, project design, cost

estimating, permitting, scheduling, billing, and construction management. Students will learn how to use project management software to develop a plan to manage their capstone project. Students will be introduced to how supply chains and labor pools impact project planning. Transfer Curriculum Goal(s): none

CONS 2250 - Construction Internship 4 (4 credits)
Prerequisite: CONS 2200 Construction Internship 3 and Instructor Permission
Corequisite: none
This internship further exposes students to jobsite expectations and skills needed to work in their preferred (or similar) construction trade and will introduce students to the project/business management side of their preferred (or similar) trade. Students will intern with the program's local trade partners to gain trade experience and to build employer references. The internship will be tailored to support the students' future trajectories in their preferred (or similar) trades. The internship will continue to build on the trade-specific knowledge and hard skills, client interaction, budget/estimates, and project planning, and will also support students in refining where they want to work upon the completion of their degree. Transfer Curriculum Goal(s): none

CONS 2290 - Construction Technology Capstone (4 credits)
Prerequisite: CONS 2230 Capstone Project Planning *Corequisite:* none
This course presents students with a real-world construction project, utilizing the knowledge and experience gained in previous courses. In this course students will demonstrate their ability to collectively construct a small project with their classmates. With faculty oversight, students will construct the capstone project that they planned in CONS 2230. Transfer Curriculum Goal(s): none

Cyber-Security (CSEC)

CSEC 1300 - Cybersecurity Essentials (2 credits)
Prerequisite: Computer application proficiency *Corequisite:* none
This course introduces students to networking concepts, technologies, and typical network administration duties found in the workplace. Students will learn communication models, network protocols, IP addressing and subnetting, physical and logical topologies for local area networks (LAN) and wide area networks (WAN), transmission media, and basic router and switch configuration. Transfer Curriculum Goal(s): none

CSEC 2310 - Network Intrusion (3 credits)
Prerequisite: COCP 1211 Network Security *Corequisite:* none
This course examines ethical hacking and information systems security auditing. Students will focus on the current security threats, advanced attack vectors, and practical real time demonstration of the latest hacking techniques, methodologies, tools, tricks, and security measures. The course will explore pentesting (Penetration Testing), hacking and securing systems. The lab intensive environment provides student's in-depth knowledge and practical experience with the current security systems. Foundational concepts include how perimeter defenses work and scanning and attacking networks. Students will learn how intruders escalate privileges and what steps can be taken to secure information technology system. Content topics include: intrusion detection, policy creation, social engineering, Distributed Denial-of-Service (DDoS) attacks, buffer overflows, and virus creation. Transfer Curriculum Goal(s): none

CSEC 2313 – Firewalls and VPNs (3 credits)
Prerequisite: CSEC 2310 Network Intrusion *Corequisite:* none
This course provides the student with a general understanding of how to install, configure, and manage firewalls for defense of enterprise network architecture. Students will learn the theory and configuration steps for setting up the security, networking, threat prevention, logging, and reporting features of next generation firewall technologies. Transfer Curriculum Goal(s): none

CSEC 2320 - Advanced Network Defense (3 credits)
Prerequisite: COCP 1211 Network Security *Corequisite:* none
This course examines theoretical understanding of network security principles as well as the tools and configurations available. The course will emphasize the practical application of skills needed to design, implement, and support network security. Students will develop critical thinking and complex problem solving skills using simulation-based scenarios that promote the exploration of networking security concepts, allowing students to experiment with network behavior and ask "What if" questions. Students will be equipped with the knowledge and skills needed to prepare for entry-level security specialist careers. The course will cover modern network security threats, securing network devices, authentication, authorization and accounting, firewall technologies, intrusion prevention, cryptography, implementing virtual private networks, managing a secure network, and implementing the cisco adaptive security appliance. Transfer Curriculum Goal(s): none

CSEC 2330 - Security Capstone (3 credits)
Prerequisite CSEC 2310 Network Intrusion *Corequisite:* none
This course allows students to develop their professional competency in cyber-security by working on a semester-long project. Students will research the SysAdmin, Audit, Networking and Security (SANS) Institute 20 critical security controls. Using the SANS model, students will be required to design, deploy, manage, identify and fix security risks in a virtual network of their design. Transfer Curriculum Goal(s): none

Ecology (ECOL)

ECOL 1250 - Ecology (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of MATH 0250 Math Concepts or an equivalent assessment score. *Corequisite:* none
This course covers ecological concepts including physical factors of organisms, population regulation and interactions, nutrient cycling and energy flow, as well as community change and succession. Students will learn and apply ecological concepts to terrestrial ecoregions and aquatic environments to gain understanding of ecosystem function and implications for human use and management decisions. Natural and human disturbances of ecosystems and the concept of sustainability will also be within the concepts of ecology. The major biomes will be explored in relationship to these concepts, with an emphasis on regional ecosystems. Transfer Curriculum Goal(s): 3, 10

ECOL 1350 - Ecology of Minnesota Raptors (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of MATH 0250 Math Concepts or an equivalent assessment score. *Corequisite:* none
Ecology of Minnesota Raptors provides students with an opportunity to explore basic ecological principles as they apply to behavioral, population, and conservation ecology of regional birds of prey. In addition to exploring physiological and morphological adaptations that set raptors apart as a group, students will gain experience with analyzing technical literature, taxonomy, and species identification. The lab component emphasizes lecture content and application of the scientific method. Students will be required to attend two field trips to fulfill the requirements of the course. Transfer Curriculum Goal(s): 3, 10

Economics (ECON)

ECON 1230 - Principles of Macroeconomics (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is an introduction to macroeconomics. Students will study demand and supply theory, fiscal and monetary policy, national income, and money and banking. Other topics they will explore include competing macroeconomic theories, the economic functions of government, and theories of taxation. This course has broad general education application but is especially appropriate for economics, accounting, and business majors. Transfer Curriculum Goal(s): 5, 9

ECON 1250 - Principles of Microeconomics (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course covers supply and demand; market competition and monopoly; distribution of income; resource allocation and consumption; pricing; economic interdependencies in the global economy, and effects of global economy on individual decisions. Students will analyze microeconomic behavior of consumers, firms, and markets in domestic and world economy. Transfer Curriculum Goal(s): 5, 8

EMT (EMT)

EMT 1715 - Emergency Medical Responder (3 credits)
Prerequisite: none *Corequisite:* none
The Emergency Medical Responder (EMR) course prepares individuals for employment in a variety of pre-hospital, industrial and first responder settings. Students will learn the core knowledge, skills, and attitudes to function in the capacity of an EMR.

The successful completion of an approved first responder course is required training as a fire fighter and many law enforcement programs. This EMR course meets the curriculum guidelines set forth by the U.S. Department of Transportation, National Highway Traffic Safety Association, and the Minnesota State Emergency Medical Services Regulatory Board. The course reflects content of the EMR National Standard Curriculum. Students will become AHA, BLS certified or equivalent. Transfer Curriculum Goal(s): none

EMT 1720 - Introduction to Emergency Medical Services (1 credit)
Prerequisite: none Corequisite: none
This course introduces students to the career field of emergency medical services. Students will develop an understanding of this career field as well as learn skills in job-seeking and job-keeping. CPR certification is included in this course. Transfer Curriculum Goal(s): none

EMT 1725 - Emergency Medical Technician (6 credits)
Prerequisite: none Corequisite: none
This Emergency Medical Technician (EMT) course will train the participant in the skills and knowledge necessary to respond to medical and trauma emergencies and pass the core competencies exam for certification. Students will learn skills they need to be qualified to work as emergency room technicians, ambulance clinician, or in other healthcare settings.

The course is based on US Department of Transportation standards. Clinical hours are a part of this course. Medical direction for the EMT is an essential component of the curriculum to allow for the EMT to carry and assist with administration of medications to patients. This course prepares students to sit for the National Registry EMT written exam required for licensure. Transfer Curriculum Goal(s): none

EMT 1730 - Emergency Medical Technician Clinical (2 credits)
Prerequisite: EMT 1725 Emergency Medical Technician *Corequisite:* none
This course will provide students with the opportunity to ride a minimum of 96 hours in a combination of Advanced Life Support (ALS) and Basic Life Support (BLS) ambulances. Students will learn to assist paramedics in performance of ALS skills and assessment while refining BLS assessment and skills. This course, in conjunction with Advanced Life Support Clinical and Emergency Medical Operations, meets the EMT guidelines of the National Registry of Emergency Medical Technicians and the Minnesota State EMS Regulatory Board. Transfer Curriculum Goal(s): none

EMT 1735 - Emergency Medical Operations (3 credits)
Prerequisite: EMT 1725 Emergency Medical Technician Corequisite: none
This course will provide the opportunity to further skills and to apply the knowledge of operational roles and responsibilities of emergency medical operations professionals. Students will learn skills in incident management, multiple casualty incidents, hazardous materials, emergency medical services, response to terrorism, and disaster. Students will be required to ensure patient, public, and personal safety. Transfer Curriculum Goal(s): none

EMT 1740 - Basic Cardiology for the EMT (3 credits)
Prerequisite: EMT 1725 *Corequisite:* none
This course is designed to give the Emergency Medical Technician (EMT) students basic knowledge to identify echocardiogram (EKG) rhythms and treat arrhythmias in an emergency setting. Students will learn basic pathophysiology of the cardiovascular system and treatments for specific arrhythmias in an emergency Basic Life Support (BLS) setting.

English (ENGL)

ENGL 0225 - Critical Reading and Writing Concepts (5 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course is designed to help students learn and develop critical reading skills necessary for comprehending, analyzing, and interpreting college-level material. Students will be introduced to a variety of genres, including fiction and non-fiction. In addition, students will learn about the writing process as it relates to drafting, revising, and editing. This course covers the basic rules of Standard Written English. The course emphasis will also include sentence structure, grammar and usage, punctuation, vocabulary, spelling, writing style, and organization of paragraph and essay forms, using specific evidence and explanations to support the controlling or main idea. The course is designed to prepare students for college level reading and writing. Transfer Curriculum Goal(s): none

ENGL 0250 – Express English (2 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* ENGL 1276 College Composition
This course is designed to help students learn and develop critical reading and writing skills necessary for evaluating, synthesizing, and integrating secondary source materials to support an argument. Students will learn rhetorical modes from the perspective of a reader and writer. In addition, this course covers the basic rules of standard written English. The course emphasis will be on sentence structure, grammar and usage, punctuation, vocabulary, spelling, writing style, and basic paragraph and essay form. Transfer Curriculum Goal(s): none

ENGL 1276 - College Composition (4 credits)
Prerequisite: ENGL 0225 Critical Reading and Writing Concepts or a college ready assessment score in reading *Corequisite:* none
Students will learn the process of writing their ideas for an audience. The course will focus on the generation, organization and communication

of ideas in expository essay forms based on experience, observation, and research, with an emphasis on argumentation, critical thinking, and rhetorical strategies. Mechanics and writing style will also be integrated throughout the course. Transfer Curriculum Goal(s): 1

ENGL 1277 - Technical Communication (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is designed to prepare students for writing in the workplace. Students will create a variety of documents, including memos, technical manuals, proposals, and reports. Emphasis will be placed on audience analysis, effective organization, document design, and readability. Transfer Curriculum Goal(s): 1

ENGL 1280 - Introduction to Literature (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course presents students with a survey of the major forms of literature. While the broad focus is on what these works say about the human experience, the course will also address how this experience is affected by social and cultural contexts. Students will increase their appreciation and critical understanding of literature through reading, writing, and discussion. Transfer Curriculum Goal(s): 6

ENGL 1290 - Directed Study in Composition (1 credit)
Prerequisite: Three credits of composition that have been transferred to PTCC *Corequisite:* none
Students conduct extensive research on a specific topic and present their findings in advanced persuasive essay form. Though some deadlines exist, the students generally work at their own pace and are responsible for managing their time effectively. Transfer Curriculum Goal(s): none

ENGL 2200 - Advanced Composition (3 credits)
Prerequisite: ENGL 1276 College Composition or ENGL 1277 Technical Communications *Corequisite:* none
This course is designed to build upon the foundational writing skills and processes learned in College Composition. Among these are the effective implementation of various writing modes, the use of appropriate rhetorical strategies, and an understanding of audience. Through intensive writing, reading, and research, students will also hone critical thinking skills. While students will be encouraged to shape many of the writing topics to fit their

own personal interests and needs, there will always be an emphasis on clear, precise, analytical writing. Transfer Curriculum Goal(s): 1

ENGL 2250 - Environmental Writing (3 credits)
Prerequisite: ENGL 1276 College Composition or ENGL 1277 Technical Communications *Corequisite:* none
In this course, students build upon foundational writing skills and processes, such as implementation of various writing modes, use of appropriate rhetorical strategies, and understanding of audience. Students will perform intensive reading, researching, and writing to explore how rhetoric and written communication increase understanding of environmental issues and movements. They will also articulate understanding and managing of public opinion about those issues and movements, thereby enhancing their effectiveness as global citizens. Transfer Curriculum Goal(s): 1, 10

ENGL 2276 - Multicultural Literature (3 credits)
Prerequisite: ENGL 1276 College Composition *Corequisite:* none
Multicultural Literature is a study of literature written by and reflecting the perspectives of writers from different ethnic backgrounds within the United States. The course includes text written by contemporary writers focusing on the experiences of various ethnic groups through poetry, fiction, creative non-fiction, and drama. Transfer Curriculum Goal(s): 6, 7

ENGL 2280 - Introduction to Creative Writing (3 credits)
Prerequisite: ENGL 1276 College Composition *Corequisite:* none
This course will enhance the student's understanding of the various conventions of creative prose and poetry. Students will compose their own creative written works in poetry, short fiction, and non-fiction memoir, and share and refine their writing in a workshop setting. Course emphasis is on composing imaginative, insightful written work designed to have an impact on a public audience. Transfer Curriculum Goal(s): 1, 6

ENGL 2285 – Creative Nonfiction Writing (3 credits)
Prerequisite: ENGL 1276 College Composition *Corequisite:* none
This course will enhance student understanding of the various conventions of creative nonfiction within subgenres such as memoir, essay, and other forms. Students will learn to critically analyze and respond to published texts; write and revise creative nonfiction utilizing form and technique, authority, point of view, and individual voice and style; and respond to classmates' pieces in a workshop setting. Course emphasis is on composing imaginative, insightful written work designed to have an impact on a public audience. Transfer Curriculum Goal(s): 1, 6

Environmental Science (ENSC)

ENSC 1250 - Introduction to Environmental Science (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0250 Math Concepts or an equivalent assessment score *Corequisite:* none
In this course, students look at the relationship of humans to their environment from local, regional, and global perspectives. Students will study natural ecosystems, the impact of human activity on natural resources and environmental quality, environmental ethics, and strategies to maintain a sustainable biosphere. Laboratory component includes experiences in the scientific method, basic ecological and environmental field techniques and assessment, and selected field trips to local agencies, research facilities, and businesses. Transfer Curriculum Goal(s): 3, 10

Geography (GEOG)

GEOG 1200 – World Geography (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will provide an overview of global geography and introduces the dynamic and complex relationships between people and the worlds they inhabit. Students will learn about the interconnections between their own lives and those of people in different parts of the world. Transfer Curriculum Goal(s): 5, 10

GEOG 1225 - Geography of the US and Canada (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will provide an overview of the Geography of the United States and Canada and introduces the dynamic and complex relationships between the physical environment and the cultural landscapes that people inhabit. Students will learn the interconnections between their own lives and those of people living elsewhere on the continent. Transfer Curriculum Goal(s): 5, 7

GEOG 1250 - Physical Geography (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will introduce the physical processes that are at work on the surface of the earth. Students will learn the processes that influence the lithosphere, atmosphere, hydrosphere and biosphere. Topics include

earthquakes, volcanoes, tornadoes, blizzards, winds, precipitation, the water cycle, vegetation, soil and life. This course includes a basic understanding of how these systems interact and how the physical landscape interacts with human landscapes. Included in this section will be discussions about environmental problems such as acid rain, soil degradation, desertification, and rain forest destruction. Transfer Curriculum Goal(s): 3, 10

GEOG 1255 - Human Geography (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will provide an overview of Human Geography and how human interactions shape material and cultural landscapes. It broadly examines the great diversity of human organization and experience in different countries through a variety of perspectives. Essential to this examination is a comparative review of the contemporary geographies of race, language, political ideologies (including religion), public policy, ecology, economic activity, natural resources, settlements, folklore, and demographics. What distinguishes human geography from other related disciplines, such as development, economics, politics, and sociology, are the application of a set of core geographical concepts to the phenomena under investigation, including space, place, scale, landscape, mobility, and nature. These concepts foreground the notion that the world operates spatially and temporally, and that social relations do not operate independently of place and environment, but are thoroughly grounded in and through them. Transfer Curriculum Goal(s): 5, 7

German (GERM)

GERM 1100 - German I (4 credits)
Prerequisite: none *Corequisite:* none
Students will learn the basics of German grammar and vocabulary, at least three of the four noun categories, and will become familiar with the basic rules of word order. Students will be introduced to the major components of German culture. Students will complete short writing assignments, practice pronunciation, and sentence intonation with the instructor. Transfer Curriculum Goal(s): Goal 8: Global Perspective

GERM 1102 - German II (4 credits)
Prerequisite: GERM 1100 German I *Corequisite:* none
This course is intended to build on the work done in GERM 1100. Students will review German grammar, expand their vocabulary, and write short

essays. Students will also learn about German and Austrian history.
Transfer Curriculum Goal(s): Goal 8: Global Perspective

Gunsmithing (GSTP)

GSTP 1202 - Rifle Design and Function (3 credits)
Prerequisite: none *Corequisite:* none
This course investigates the design and function of hinge, lever, and pump action rifles through an in-depth study of various models. Students will learn how to disassemble and reassemble firearms, troubleshoot malfunctions, identify parts from schematics, fabricate or order parts as necessary, and maintain proper care of firearms. Transfer Curriculum Goal(s): none

GSTP 1204 - Shotgun Design and Function (3 credits)
Prerequisite: none *Corequisite:* none
This course investigates the design and function of hinge, lever, and pump action shotguns through an in-depth study of various models. Students will learn to disassemble and reassemble firearms, troubleshoot malfunctions, identify parts from schematics, fabricate or order parts as necessary, and maintain proper care of firearms. Transfer Curriculum Goal(s): none

GSTP 1210 – Gunsmith Machining (4 credits)
Prerequisite: MTTP 1208 Measuring Tools and MTTP 1245 Machine Fundamentals I *Corequisite:* none
This course focuses on advanced machine set-ups, the fabrication of specialized tooling and the application of manual machines utilized in the firearms industry. Students will learn tool design; advanced lathe, including threading and knurling; and advanced milling processes, including indexing and grinding. Students will fabricate specialized tooling pertinent to the gunsmith. Transfer Curriculum Goal(s): none

GSTP 1217 - Firearm Business (2 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will introduce students to business operations, state and federal firearm regulations. Students will also acquire job seeking, business ownership, and leadership skills. Transfer Curriculum Goal(s): none

GSTP 1225 - Welding, Soldering & Brazing (2 credits)
Prerequisite: none *Corequisite:* none
In this course, students learn about basic oxy/fuel, stick, (TIG) Tungsten Inert Gas and (MIG) Metal Inert Gas welding equipment, procedures and safety.

To reinforce their knowledge, students will practice appropriate welding techniques as applied to various materials and joint types. Instruction will also be provided on soft soldering, silver brazing and brass brazing. Transfer Curriculum Goal(s): none

GSTP 1230 - Gunsmith Welding and Metallurgy (3 credits)
Prerequisite: none *Corequisite:* none
This course focuses on gunsmith welding skills required for basic oxy/fuel, stick, Tungsten Inert Gas (TIG) and Metal Inert Gas (MIG) welding equipment, procedures and safety. Students will learn appropriate welding techniques as applied to various materials and joint types. Instruction will also be provided on soft soldering, silver brazing, brass brazing as well as heat treatment of metals commonly used by the gunsmith. Metals include 0-1, 5-7, 1095, 12-L-14, 8620, 4140. In addition, some stainless and non-ferrous metals are reviewed. Transfer Curriculum Goal(s): none

GSTP 1240 - Semiautomatic Design and Theory (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of GSTP 1202 Rifle Design and Function and GSTP 1204 Shotgun Design and Function *Corequisite:* none
This course will provide student with the opportunity to explore the design and function of semiautomatic firearms through an in-depth study of commonly used systems. Students will learn to disassemble and reassemble semiautomatic firearms, troubleshoot malfunctions, fabricate or order parts and assemblies, and maintain proper care of these firearms. Transfer Curriculum Goal(s): none

GSTP 1250 - Handgun Design and Theory (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of GSTP 1202 Rifle Design and Function and GSTP 1204 Shotgun Design and Function *Corequisite:* none
This course will provide students with the opportunity to explore the design and function of revolver and auto-loading pistols and handgun accessories through an in-depth study of commonly used systems. Students will learn how to disassemble and reassemble revolvers and pistols, troubleshoot malfunctions, fabricate or order parts and assemblies, and maintain proper care of these firearms. Transfer Curriculum Goal(s): none

GSTP 2210 - Tooling & Fixturing (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of GSTP 1235 Metallurgy and Heat Treating, MTTP 1208 Measuring Tools and MTTP 1245 Machine Fundamentals
Corequisite: none
In this course, students learn advanced machine set-ups, the fabrications of specialized tooling and the application of manual machines utilized in the firearms industry. They will fabricate specialized tooling pertinent to the gunsmith. To reinforce a student's understanding of tool fabrication, the design, heat treatment and finishing of tooling will be analyzed and practiced. Transfer Curriculum Goal(s): none

GSTP 2230 - Barreling & Chambering (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of GSTP 1215 Accessories Installation, MTTP 1208 Measuring Tools, MTTP 1241 Introduction to Computer Aided Design (CAD) and MTTP 1245 Machining Fundamentals I *Corequisite:* none
In this course, the students will learn, discuss and apply the theories of breeching mechanisms, chambering, head spacing and headspace correction in the modern rifle and handgun in lecture and lab settings. Transfer Curriculum Goal(s): none

GSTP 2233 - Firearm Finishes (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course covers various metal preparation techniques involving power and hand processes. In addition students will practice the coloration and preserving of metals through chemical processes and applications and learn spray-on finishes and dipping processes. Transfer Curriculum Goal(s): none

GSTP 2267 - One Piece Stockmaking (3 credits)
Prerequisite: none *Corequisite:* none
This course will explore the selection and construction of a one-piece gunstock for a bolt action rifle. Starting with the selection of a blank, students will construct a gunstock, fit the gunstock to an individual, and finish the gunstock. Additional topics include selection of woods, proper dimensioning and fit, and carving tools for wood stocks. Transfer Curriculum Goal(s): none

GSTP 2269 - Two Piece Stockmaking (3 credits)
Prerequisite: none *Corequisite:* none
This course covers the building of a two piece gunstock. Stock materials, design, layout, construction and finishing of two piece stocks are covered. The methods of stock fitting are discussed in depth. Transfer Curriculum Goal(s): none

GSTP 2270 - Shotgunsmithing (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of GSTP 1204 Shotgun Design & Function, GSTP 1225 Welding, Soldering and Brazing, MTTP 1208 Measuring Tools and MTTP 1245 Machine Fundamentals I *Corequisite:* none
In this course, students learn the practices and principles of shotgun; design, choke systems, barrel dimension theory, fitting to individuals and modification, to safely improve performance. To reinforce their understanding, students will apply these practices and principle to various shotguns and then examine and evaluate the results to ensure safe performance improvement. Transfer Curriculum Goal(s): none

GSTP 2280 - Riflesmithing (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of GSTP 1202 Rifle Design and Function, MTTP 1208 Measuring Tools and MTTP 1245 Machine Fundamentals I *Corequisite:* none
In this course, students learn the advanced aspects of rifle accurizing in order to optimize accuracy and diagnose problems. They will study and practice a variety of accurizing procedures ranging from barrel bed stabilization to machining actions used to improve the ability of a firearm to absorb vibrations. Firearm modifications are applied to improve accuracy through the implementation of machining techniques, sighting systems, trigger systems, and shooting techniques. Transfer Curriculum Goal(s): none

GSTP 2290 - Gunsmithing Capstone (4 credits)
Prerequisite: ENGL 1276 College Composition or ENGL 1277 Technical Communications and GSTP 2230 Barreling & Chambering *Corequisite:* none
This course combines the knowledge and skills learned in previous gunsmithing courses in a single custom firearm or firearm restoration project. Students will present a capstone project plan that will incorporate financial considerations, material sourcing, project milestones, and completion timelines. This project will include working with a combination of CAD design, hand tools, machine tools, wood working, metal fusion, heat treating, and firearm finishes. Examples of capstone projects include but

are not limited to building a custom rifle, shotgun, handgun, double rifle, or muzzleloader, or a complete restoration of a firearm.

Health Care Core Curriculum (HCCC)

HCCC 1215 - Introduction to Health Careers I (2 credits)
Prerequisite: none *Corequisite:* none
This course will introduce students to healthcare considerations and expectations. Students will explore legal and ethical influences on healthcare, while developing a basic understanding of medical terminology and therapeutic communication techniques in healthcare careers. Transfer Curriculum Goal(s): none

HCCC 1220 - Introduction to Health Careers II (2 credits)
Prerequisite: HCCC 1215 Introduction to Health Careers I *Corequisite:* none
This course will familiarize students with the expected patient care for various health care careers. Students will explore client and staff diversity, client needs, and safety and standard precautions found in allied health careers. Course content is designed to provide health care terminology, promote discussion, increase professional communication and apply critical thinking to various health care topics. Transfer Curriculum Goal(s): none

HCCC 1225 - Healthcare Careers Skill Set (2 credits)
Prerequisite: HCCC 1215 Introduction to Healthcare Careers I and HCCC 1220 Introduction to Healthcare Careers II *Corequisite:* none
This course is an introduction to basic nursing care skills and concepts necessary to prepare an individual to be eligible to take the Nursing Assistant Test-Out (NATO) examination. Upon successful completion of this examination, candidates will qualify for placement on the Nursing Assistant Registered (NA/R) with the State of Minnesota and employment in a health care facility under the direct supervision of a licensed nurse. Transfer Curriculum Goal(s): none

Health Care Pre-Professional (HPPC)

HPPC 1000 - Medical Dosages (1 credit)
Prerequisite: none *Corequisite:* none
This course will focus on introducing students to medical dosages and the terminology associated with medication orders. Students will learn theory and skills related to calculating medication dosages. Transfer Curriculum Goal(s): none

HPPC 1002 - Medical Terminology (1 credit)
Prerequisite: none *Corequisite:* none
This course will focus on reinforcing correct word definitions, pronunciation, and spelling as studied in Medical Terminology. Students will be introduced to additional terminology specific to all body systems as well as abbreviations and common drug names. Students will apply medical terminology. Medical terminology as it relates to basic anatomy and functions of the body systems will be further explored. Transfer Curriculum Goal(s): none

HPPC 1004 - Pharmacology (1 credit)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will provide the student with an introduction to basic pharmacology. Students will be presented with the major drug classifications as they relate to body systems. Transfer Curriculum Goal(s): none

HPPC 1010 - Trained Medication Aide for Unlicensed Personnel (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* HPPC 1000 Medical Dosages
This course will focus on introducing students to drug therapy, safe administration of prescribed medications, knowledge of drug action related to body systems, side effects of medications. Students will receive an overview of metric, apothecary, and household measurement abbreviations, with implications for use during medication administration. Transfer Curriculum Goal(s): none

History (HIST)

HIST 1100 - United States History to 1877 (3 credits)
Prerequisite: Reading College Level or placement determined by assessment score *Corequisite:* none
This course is an introduction to the history of the United States to 1877. Students will learn about the major historical events, figures, movements, and controversies from the indigenous period, the colonial period, and through the early history of the United States to 1877. Topics include: Native American culture, European exploration and settlement, the American Revolution and the founding of the republic, slavery, the territorial expansion of the United States, Sectionalism, Civil War, and Reconstruction. Special emphasis will be placed on social, economic, and political factors. Transfer Curriculum Goal(s): Goal 5. History and the Social and Behavioral Sciences; Goal 7. Human Diversity

HIST 1200 - United States History Since 1877 (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is an introduction to the history of the United States from 1877 to the present. Students will learn about the major historical events, figures, movements, and controversies of the period spanning the late 1800s, through the 20th century, and into the present. Special emphasis will be placed on social, economic, and political factors. Transfer Curriculum Goal(s): 5, 7

HIST 1400 - World History to 1500 (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is a survey of world history from the beginnings of civilization (ca. 4000 BCE) to 1500 CE. Students will explore the history of the cultural, religious, economic, political, military, and social aspects of the ancient civilizations of China, India, the Near East and the Mediterranean, classical Greece and Rome, and Medieval Europe. The course also includes a focus on pre-1500 CE cultures in Africa, the Americas, and Southeast Asia and Oceania. Transfer Curriculum Goal(s): 5, 8

HIST 1500 - World History Since 1500 (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is a survey of world history from the rise of Europe (ca. 1500) to the present. Students will explore the history of cultural, religious, economic, political, military, and social aspects of various regions of the world, and how these peoples experienced increasing contact, conflict, and subsequent global integration and cultural exchange. Students will also examine the rise and influence of western power throughout the globe from ca. 1500 to 1920, and the development of the regions of Europe, North and South America, Africa, and Asia to the present day. Transfer Curriculum Goal(s): 5, 8

HIST 1600 - Minnesota History (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course examines Minnesota's history from the Native American era up to the present. Student's will explore topics including: geographical aspects of Minnesota's environment (topography, vegetation, drainage); Native American groups in Minnesota; European exploration and the fur trade; initial American settlement and use of the land; territoriality and statehood;

the Dakotah Conflict; the connection between Minnesotans and their natural environment (farming, logging, mining); the Progressive Era and the 1920's; the Depression and World War II; and the state's environmental, economic, social, and political history since 1945. Transfer Curriculum Goal(s): 5, 10

Human Services Eligibility Worker (HSEW)

HSEW 1201 - Introduction to the HSEW Role (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
In this course, students will explore the role of the eligibility worker. Students apply critical thinking concepts to strengthen thinking, learning, and research strategies needed in the workplace. Designed to enhance career success and help students understand the role of the eligibility worker in the agency, this course presents diverse perspectives to challenge students to examine their assumptions and values by analyzing, synthesizing, and evaluating contemporary social issues and the diverse populations served by the agency. Transfer Curriculum Goal(s): none

HSEW 1205 - Worker Skill (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
In this course students will become adept at interviewing and gathering necessary information to determine eligibility for programs. Emphasis is on acquiring the communication skills needed to explain eligibility requirements and program details to clients, respecting an applicant's right for privacy and confidentiality, and understanding the need for organization and accuracy. Transfer Curriculum Goal(s): none

HSEW 1230 - Public Assistance Policy 1 (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* HSEW 1235 Eligibility Systems 1
This course will cover the policy for the administration of welfare programs in the state of Minnesota. Students will discern the different public assistance programs as administered by the Department of Human Services and local human service agencies. Transfer Curriculum Goal(s): none

HSEW 1235 - Eligibility Systems 1 (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* HSEW 1230 Public Assistance Policy 1
In this course, students will master appropriate navigational techniques,

along with a basic understanding of each of the systems' functions and menus through system case entry and resource identification. Using simulated case entry on Department of Human Services (DHS) eligibility computer systems, students will create a caseload and apply various intake and case maintenance procedures according to policy. Transfer Curriculum Goal(s): none

HSEW 2230 - Public Assistance Policy 2 (4 credits)
Prerequisite: HSEW 1230 Public Assistance Policy 1 *Corequisite:* HSEW 2235 Eligibility System 2
In this course students will interpret and apply policy, identify required verifications and Department of Human Services' forms, and conduct simulated client interviews. With case scenarios, students will assess eligibility and estimate the benefit based on policy. Emphasis will be placed on evaluating client circumstances and predicting eligibility. They will summarize ongoing case maintenance policy, such as reporting, recertification, change in assistance unit members, ineligibility, and adjust the benefit as policy dictates. Transfer Curriculum Goal(s): none

HSEW 2235 - Eligibility System 2 (4 credits)
Prerequisite: HSEW 1235 Eligibility Systems 1 *Corequisite:* HSEW 2230 Public Assistance 2
In this course students will create accurate results utilizing Department of Human Services (DHS) approved procedures, such as processing recertification, adding/removing household members, closing cases, and referring clients to appropriate community resources. The student will utilize the capacities of the DHS computer systems to issue benefits according to policy and procedures. Client-appropriate written and oral communication explaining complex welfare policy and procedures will be practiced. Transfer Curriculum Goal(s): none

HSEW 2290 - Internship (6 credits)
Prerequisite: HSEW Courses and Instructor Permission *Corequisite:* none
In this course the student will experience working in a Human Services agency for the purpose of gaining practical hands-on experience in determining eligibility and ongoing case maintenance. This class is organized by the student and their advisor during the final phase of the student training for entry level job as an eligibility worker. Students will demonstrate cultural and gender sensitivity and utilize ethical practices. The focus of this course will be to utilize skills in reading, comprehending and applying public assistance policy to a variety of situations. Emphasis will be placed on reading, listening, writing, speaking, spelling, and understanding the statutes

and policies governing the eligibility and receipt of public assistance. Students will also be required to utilize problem-solving techniques and critical thinking skills. After completing this course, students will have experience in determining initial and ongoing eligibility. Transfer Curriculum Goal(s): none

American Sign Language (LASL)

LASL 1205 - American Sign Language I (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Questions, commands, and simple sentences are covered, leading to basic conversational skills. Students will gain cultural knowledge and increased understanding of the Deaf Community. Transfer Curriculum Goal(s): 8

LASL 1265 - American Sign Language II (3 credits)
Prerequisite: LASL 1205 American Sign Language I (with "C" or better)
Corequisite: none
This course continues to develop the basics of the American Sign Language (ASL) and the building of both expressive and receptive vocabulary. Students will develop the communicative competencies in the language focusing on skills including temporal sequencing, spatial agreement and object identification through description. Basic storytelling skills will be introduced. Study of Deaf Culture is continued. Transfer Curriculum Goal(s): 8

LASL 2210 - Numbers and Finger Spelling (3 credits)
Prerequisite: LASL 1265 American Sign Language II (with"C" or better)
Corequisite: none
This course introduces students to the fundamentals of lexicalized fingerspelling and use of numbers in signed form. Students will learn loan signs, letter blocks, and methods for improving both expressive and receptive skills of both fingerspelling and numbers. Transfer Curriculum Goal(s): none

LASL 2270 - American Sign Language III (3 credits)
Prerequisite: LASL 1265 American Sign Language II (with "C" or better)
Corequisite: none
This course expands the communicative range developed in LASL 1265 American Sign Language II to talk about people and places in a contextually-reduced framework. Students will learn to describe places, objects, and events. In addition, students will develop basic narrative skills to tell about past events. Through in-class discussions/demonstrations, media and course readings, students will be exposed to elements of the Deaf community and culture. Transfer Curriculum Goal(s): 8

LASL 2275 - American Sign Language IV (3 credits)
Prerequisite: LASL 2270 American Sign Language III (with "C" or better)
Corequisite: none
This course is a continuation of LASL 2270 American Sign Language III and increases the emphasis on abstract and challenging conversational and narrative range. Students will learn basic classifier usage; receptive and expressive coursework; broader sign vocabulary and grammatical structure; various aspects of Deaf culture and cultural behavior rules. Transfer Curriculum Goal(s): 8

Math (MATH)

MATH 0250 - Math Concepts (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in math *Corequisite:* none
This course is designed to establish foundations of college-level mathematical concepts to prepare students for either the applications of math in their technical programs or for the algebra sequence. The course will show the use of fractions, decimals, percentages, and proportions in various technical contexts. Students will practice unit conversions and the use of geometry formulas in authentic applications, as well as explore and interpret graphs. Transfer Curriculum Goal(s): none

MATH 0355 - Express Mathematical Thinking (1 credit)
Prerequisite: placement determined by an equivalent assessment score
Corequisite: MATH 1256 Mathematical Thinking
This course is designed to be taken along with MATH 1256 Mathematical Thinking. Students will learn about real numbers, proportions, percentages, areas, first-degree equations, and graphing, as the material is needed in Mathematical Thinking. Students will also review the content being taught in Mathematical Thinking. Transfer Curriculum Goal(s): none

MATH 0365 - Algebra Concepts (3 credits)
Prerequisite: MATH 0250 Math Concepts or placement determined by an equivalent assessment score *Corequisite:* none
This course is designed to lay the foundation for success in further mathematics and science courses by building reasoning skills while studying the key concepts in algebra and furthering fluency with different number systems. Topics include first degree equations and inequalities, polynomials, systems of equations, and sketching graphs of functions. Transfer Curriculum Goal(s): none

MATH 0374 - Express Elementary Statistics (1 credit)
Prerequisite: placement determined by an equivalent assessment score *Corequisite:* MATH 1265 Elementary Statistics
This course is designed to be taken along with MATH 1265 Elementary Statistics. Students will learn about real numbers, proportions, percentages, areas, first-degree equations, and graphing, as the material is needed in Elementary Statistics. Students will also review the content being taught in Elementary Statistics. Transfer Curriculum Goal(s): none

MATH 0450 - Intermediate Algebra (3 credits)
Prerequisite: MATH 0365 Algebra Concepts or placement determined by an equivalent assessment score *Corequisite:* none
This course prepares students for MATH 1260 College Algebra. Students will learn functions and function algebra with special emphasis on polynomials, rational functions, radical functions, and absolute value functions. They will solve equations, factor quadratic equations, and solve compound inequalities. Graphs and contextual problems will be included in their studies. Transfer Curriculum Goal(s): none

MATH 0460 – Express Algebra (3 credits)
Prerequisite: MATH 0365 Algebra Concepts, or PTCC Introductory Algebra Review, or PTCC Non-Algebra College Level Math *Corequisite:* none
This course is designed to be taken along with MATH 1260 College Algebra. Students will learn about factoring, functions, inequalities, radicals, inequalities, and rational functions as they are needed in College Algebra. Students will practice solving equations and graphing in preparation for the topics in College Algebra. Transfer Curriculum Goal(s): none

MATH 1251 - Technical Math (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in math *Corequisite:* none
This course is primarily for technical and industrial majors. The topics in this course include math foundation review with focus on proportionality. Students will solve linear equations with practical work application, read and compute measurement in US and Metric system, basic geometry and right angle trigonometry. Transfer Curriculum Goal(s): none

MATH 1256 - Mathematical Thinking (3 credits)
Prerequisite: Placement determined by a college ready assessment. *Students not meeting the prerequisite can register for the course but will be provided support through Adult Basic Education. *Corequisite:* none
This course emphasizes inductive and deductive reasoning, mathematical logic, number systems, elementary statistics and geometry. These topics will also be presented along with their historic background and modern practical life applications. The course is an alternative for students whose program does not require a college algebra course. Transfer Curriculum Goal(s): 4

MATH 1258 - Applied Geometry (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0450 Intermediate Algebra or MATH 0365 Algebra Concepts or an equivalent assessment score *Corequisite:* none
This course demonstrates how properties of geometric figures may be used to solve application problems for both plane and solid geometry. Students will be exposed to the axiomatic method of Euclidean geometry. Methods from coordinate and transformational geometry will be introduced as well as some right triangle trigonometry. Students will not be required to write proofs of theorems. Transfer Curriculum Goal(s): 4

MATH 1260 - College Algebra (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0450 Intermediate Algebra or an equivalent assessment score *Corequisite:* none
This course presents the student with solution methods and applications of linear, quadratic, rational and radical equations, basic complex numbers, functional graphs and transformations, polynomial and rational functions, exponential and logarithmic functions, and systems of equations and inequalities. Transfer Curriculum Goal(s): 4

MATH 1265 - Elementary Statistics (3 credits)
Prerequisite: MATH 0450 Intermediate Algebra or MATH 0365 Algebra Concepts or an equivalent assessment score *Corequisite:* none
Elementary Statistics provides students with a practical understanding of statistics. Students will be introduced to basic mathematics and probability upon which statistics relies. The course centers on descriptive statistics, elementary probability, and inferential statistics. Topics include graphing and data representation; measures of central tendency and variability; normal distributions; elementary hypothesis testing; correlation and linear regression; and analysis of variance. Transfer Curriculum Goal(s): 4

MATH 2260 - Trigonometry (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and MATH 0450 Intermediate Algebra or an equivalent assessment score *Corequisite:* none
This course introduces the concepts of trigonometry functions through both right-angle and unit circle approaches, and their inverse functions. Course content presented will include properties, graphs and identities, law of sine and cosine, and equation solution methods. In addition, other topics in the course include complex number, polar coordinate system, conic sections and basics of vector analysis. Transfer Curriculum Goal(s): 4

MATH 2262 - Calculus II (5 credits)
Prerequisite: MATH 1262 Calculus I *Corequisite:* none
A continuation of Calculus I, this course includes further calculus of transcendental functions, techniques of integration, polar coordinates, conic sections, and infinite series. Instruction will be provided in the use of a scientific calculator. Transfer Curriculum Goal(s): 4

MATH 2270 - Pre-Calculus (5 credits)
Prerequisite: Placement determined by a college ready assessment score in reading and completion of MATH 0450 Intermediate Algebra or an equivalent assessment score *Corequisite:* none
This course will provide the necessary foundation for a standard calculus course. The algebra topics presented are solution methods and applications of linear, quadratic, rational and radical equations, complex numbers, functional graphs and transformations, polynomial and rational functions, exponential and logarithmic functions, and systems of equations and inequalities. The trigonometry topics presented will include properties, graphs and identities of the trigonometric functions, laws of sine and cosine, and equation solution methods. Other related topics in the course

include polar coordinate system, conic sections and basics of vector analysis. Sequences, series, and probability may be covered. Transfer Curriculum Goal(s): 4

MATH 2280 - Calculus I (5 credits)
Prerequisite: MATH 1260 College Algebra and MATH 2260 Trigonometry or MATH 2270 Pre-Calculus *Corequisite:* none
This is the first course in the two-semester sequence of Single Variable Calculus. Topics include functions of a single variable, limits and continuity, differentiation, anti-differentiation, and integration of algebraic and transcendental functions with associated applications in each area. Transfer Curriculum Goal(s): 4

Machine Technology (MTTP)

MTTP 1201 - Basic Machine Shop (3 credits)
Prerequisite: Placement determined by minimum entry assessment scores in reading and math *Corequisite:* none
This course presents the basic principles of milling machine and engine lathe operation. Students will learn about machine theory, safety and component identification, set up, tool selection, and use of attachments. Precision layout and basic inspection are also introduced. Students will manufacture machine tool projects to blueprint specifications, using the vertical mill and engine lathe. Transfer Curriculum Goal(s): none

MTTP 1208 - Measuring Tools (1 credit)
Prerequisite: Placement determined by minimum entry assessment scores in reading and math *Corequisite:* none
This course introduces basic and precision measuring practices. Students will learn the care and use of measuring instruments, such as micrometers, calipers, scales and indicators. Transfer Curriculum Goal(s): none

MTTP 1220 - Blue Print Reading I (2 credits)
Prerequisite: Placement determined by minimum entry assessment scores in reading and math. *Corequisite:* none
This course presents basic blueprint reading principles. Topics include the alphabet of lines, arrangement of views, orthographic projection, scaling, dimensioning, tolerancing, and symbols. Students will be reading and interpreting working drawings. Transfer Curriculum Goal(s): none

MTTP 1241 - Introduction to Computer Aided Design (3 credits)
Prerequisite: Placement determined by minimum entry assessment scores in reading and math. *Corequisite:* none
This course covers the creation, manipulation, and analysis of two and three-dimensional computer-generated graphics using Solidworks software. This course includes sketching and modeling tools, reference planes, modification, appearance, drawing creation, assemblies, bill of materials, and dimensioning. Transfer Curriculum Goal(s): none

MTTP 1245 - Machining Fundamentals I (4 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of MATH 0250 Math Concepts or an equivalent assessment score *Corequisite:* none
This course presents the basic principles of milling machine and engine lathe operation. Topics include machine theory, safety and component identification, set up, tool selection, and use of attachments. Precision layout and basic inspection are also introduced. Students will manufacture machine tool projects to blueprint specifications using the vertical mill, engine lathe and grinders. Transfer Curriculum Goal(s): none

MTTP 1256 - Applied Machining Theory (3 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading and completion of MATH 0250 Math Concepts or an equivalent assessment score *Corequisite:* none
This course presents machining theory used in manufacturing. Topics include determining cutting speed and feed, cutting time, measurement over wires, chamfer depth, bolt circle dimensions and the coordinate system. Transfer Curriculum Goal(s): none

MTTP 1261 - Introduction to Computer Aided Manufacturing (2 credits)
Prerequisite: MTTP 1241 Introduction to Computer Aided Design (CAD) or instructor permission *Corequisite:* none
This course is an introduction of Computer Aided Manufacturing (CAM). Students will primarily use a Computer Aided Design (CAD) package to draw or create blueprints consisting of two-dimensional drawings of machine tool related parts. Secondly, students will begin to use Computer Aided Manufacturing to produce G & M codes for Computerized Numerical Control (CNC) machines. Transfer Curriculum Goal(s): none

MTTP 1262 - Blueprint Reading II (2 credits)
Prerequisite: MTTP 1220 Blue Print Reading I *Corequisite:* none
This course is a continuation of MTTP 1220 Blueprint Reading I and will cover basic and advanced blueprint reading principles. Topics included are interpreting thread specifications, section views, right triangle applications, dimensioning, tolerancing, and symbols. Geometric Dimensioning and Tolerancing concepts will also be introduced and applied to working drawings. Transfer Curriculum Goal(s): none

MTTP 1265 - Machining Fundamentals II (4 credits)
Prerequisite: MTTP 1208 Measuring Tools and MTTP 1245 Machining Fundamentals I *Corequisite:* none
This course is a continuation of MTTP 1245 Machining Fundamentals I and covers the basic principles of milling machine and engine lathe operation. Topics include machine safety, set-up, tool selection, use of attachments, documentation of manufacturing processes and inspection procedures. Students will manufacture machine tool projects to blueprint specifications using appropriate manufacturing processes. Transfer Curriculum Goal(s): none

MTTP 1277 - Machining Process (2 credits)
Prerequisite: MTTP 1265 Machining Fundamentals II *Corequisite:* none
This course requires students to utilize the skills and knowledge from the Precision Machining Certificate courses. Students will work in teams to manufacture a multiple component assembly project to print specifications. Transfer Curriculum Goal(s): none

MTTP 1279 - CNC Set-up & Operate (5 credits)
Prerequisite: MTTP 1220 Blueprint Reading I; MTTP 1245 Machining Fundamentals I and MTTP 1256 Applied Machine Theory
Corequisite: none
This course presents students with an introduction to Computer Numeric Controlled machining (CNC), providing the student with information to safely operate and set up machining and turning centers. Common formats and codes for manual CNC programming will also be covered. Transfer Curriculum Goal(s): none

MTTP 1290 – Directed Study in Machining (1 credit)
Prerequisite: MTTP 1201 Basic Machine Shop or Instructor Permission
Corequisite: none
This course bridges the gap between MTTP 1201 Basic Machine Shop and MTTP 1265 Machining Fundamentals II. Students will manufacture machine tool projects to blueprint specifications using the vertical mill, engine lathe and grinders. Though some deadlines exist, the students generally work at their own pace and are responsible for managing their time effectively. Transfer Curriculum Goal(s): none

MTTP 2255 - CNC Programming (5 credits)
Prerequisite: MTTP 1279 CNC Set-up & Operate *Corequisite:* none
This course will present students with the Computer Numeric Controlled machining CNC word address programming language for a variety of machining and turning centers. Programs will be written both manually, using computer aided manufacturing (CAM) software and simulated prior to running on a machine. Process and inspection sheets will be used to manufacture projects and inspect for dimensional accuracy using appropriate precision tools. Transfer Curriculum Goal(s): none

MTTP 2260 - Cutting Tool Technology (1 credit)
Prerequisite: MTTP 1265 Machining Fundamentals and MTTP 1208 Measuring Tools *Corequisite:* none
This course emphasizes the identification and use of standard and special cutting tools. Cutting tools will be examined as to their application in conventional machining. Cutting inserts such as carbides and cermets will be examined as to their use in CNC machining. Transfer Curriculum Goal(s): none

MTTP 2263 - Quality in Manufacturing (2 credits)
Prerequisite: Placement determined by minimum entry assessment scores in reading and math *Corequisite:* none
This course presents quality systems and concepts currently being utilized in the manufacturing industry. Topics include aspects of lean manufacturing with emphasis on the use of quality for continuous process improvement. Transfer Curriculum Goal(s): none

MTTP 2268 - Machining Internship (variable credits)
Prerequisite: Instructor Permission *Corequisite:* none
This course provides students with work experience in precision manufacturing technology careers. An internship plan will be developed for

each student. Actual hours of on-the-job work experience will be outlined in the internship plan. Transfer Curriculum Goal(s): none

MTTP 2290 - Manufacturing Capstone Project (3 credits)
Prerequisite: MTTP 2255 CNC Programming *Corequisite:* none
This course presents students with a real-world manufacturing project, utilizing the knowledge and experience gained in previous manufacturing/ machining courses. This involves designing a complete project including fixtures and a timeline for completion. Parts will be manufactured, inspected for tolerances, and assembled into a final product. Transfer Curriculum Goal(s): none

Music (MUSC)

MUSC 1200 - Music Appreciation (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces students to musical elements, forms and stylistic periods from the Middle Ages through the popular music of today. In addition to concentrating on Western Art Music and its representative composers, the course also touches on the increasing importance of different forms of popular music in the last century and its roots in various ethnic musical expressions. Attention will also be given to historical events, sociological influences and encounters with non-European cultures within each historical period and their effect on musical development. Transfer Curriculum Goal(s): 6

Nursing Assistant (HEOP)

HEOP 1241 - Nurse Assistant (2 credits)
Prerequisite: none *Corequisite:* HEOP 1242 Nurse Assistant Clinical
This course introduces concepts of basic human needs, health/illness continuum and basic nursing skills. The theory and role of the nursing assistant in a long term care facility as well as working with various populations will be discussed. It includes skills demonstrations, practice in a supervised laboratory setting, and orientation to clinical setting. Upon successful completion of this course and Nursing Assistant Clinical the candidate is eligible to take the Minnesota Competency Evaluation for Nursing Assistants. Individuals successfully completing this examination are placed on the Minnesota Nursing Assistant Registry. Transfer Curriculum Goal(s): none

HEOP 1242 - Nurse Assistant Clinical (1 credit)
Prerequisite: none *Corequisite:* HEOP 1241 Nurse Assistant
This course introduces the hands on concepts of basic human needs, health/illness continuum and basic nursing skills which were introduced in the Nursing Assistant course. This course includes 24 hours of clinical care of selected adult patients in a long term care setting. Upon successful completion of this course and Nursing Assistant course the candidate is eligible to take the Minnesota Competency Evaluation for Nursing Assistants. Individuals successfully completing this examination are placed on the Minnesota Nursing Assistant Registry. Transfer Curriculum Goal(s): none

HEOP 1243 – Nursing Assistant Comprehensive (3 credits)
Prerequisite: none *Corequisite:* none
This course will introduce concepts of basic human needs, health/illness continuum and basic nursing skills, along with providing clinical experience working with patients. Theory, lab and clinical aspects of the nursing assistant including skills demonstrations, practice in a supervised laboratory setting, and orientation to clinical setting will be discussed.

This course includes 24 hours of clinical care of selected adult patients in a long term care setting. Upon successful completion of this course and Nursing Assistant Clinical the candidate is eligible to take the Minnesota Competency Evaluation for Nursing Assistants. Individuals successfully completing this examination are placed on the Minnesota Nursing Assistant Registry. Transfer Curriculum Goal(s): none

Nursing (NURS)

NURS 2922 - Professional Nursing Practicum I (4 credits)
Prerequisite: Admission to the Associate Degree Nursing Mobility Program
Corequisite: none
This course provides theoretical application and skill development in the areas of professional nursing, care management, care plan process, health record management, community needs, and resources as care is delivered to clients in various health care facilities. Students will be provided the opportunity to demonstrate newly acquired cognitive and technical skills and integrate previously learned skills and knowledge in a clinical setting. Transfer Curriculum Goal(s): none

NURS 2923 - Role Transition: LPN to Professional Nurse (2 credits)
Prerequisite: Admission to the Associate Degree Nursing Mobility Program
Corequisite: none
This course is designed to transition the Licensed Practical nurse into the role of the professional nurse. Students will focus on new competencies necessary for the professional nurse including critical thinking, quality, and safety with emphasis on evidence-based practices. Topics include scope of practice, teamwork, communication, research skills, teaching-learning principles, development of the teaching role and others. Transfer Curriculum Goal(s): none

NURS 2925 - Medical Surgical Nursing I (4 credits)
Prerequisite: Admission into the Associate Degree Nursing Mobility Program
Corequisite: none
This course focuses on assisting the Licensed Practical Nurse in developing a comprehensive perspective of nursing theory using the nursing process. Students will learn how evidence-based practice influences health promotion, prevention, treatment, and recovery in the management of acute and chronic illnesses, and co-morbidities. The concept of clinical decision making is emphasized in the provision of care to diverse patients across the lifespan. Included in this course is the exploration of how lifestyle, nutrition, pharmaceuticals, and alternative treatment modalities influence the cardiovascular, integumentary, respiratory, genitourinary, endocrine, musculoskeletal, and gastrointestinal body systems. Transfer Curriculum Goal(s): none

NURS 2926 Psychosocial Nursing for the Professional Nurse (2 credits)
Prerequisite: Admission into the Associate Degree Nursing Mobility Program
Corequisite: none
This course will assist the Licensed Practical Nurse in their development as a caregiver and advocate for patients with psychosocial concerns. Students will apply a holistic approach to individuals, families, and groups experiencing mental health issues while integrating physiological, nutritional, pharmacological, and other treatment modality concepts. Emphasis will be placed on evidence-based practice and cultural, ethical, and legal concepts. Transfer Curriculum Goal(s): none

NURS 2928 - Professional Nursing Lab I (2 credits)
Prerequisite: Admission into the Associate Degree Nursing Mobility Program
Corequisite: none
This course focuses on assisting the Licensed Practical Nurse with further developing a comprehensive perspective of theoretical concepts related to

nursing skills. Students will expand their role as a professional nurse through further development of critical thinking and the application of prioritizing care while integrating the nursing process. Topic areas include safety, quality nursing care, patient education, medication/IV calculations, pharmacological concepts, and the advancement of nursing skills with an emphasis on evidence-based practice. Transfer Curriculum Goal(s): none

NURS 2931 - Professional Nursing Leadership and Management (2 credits)
Prerequisite: NURS 2922 Professional Nursing Practicum I, NURS 2923 Role Transition: LPN to Professional Nurse, NURS 2925 Medical Surgical Professional Nursing I, NURS 2926 Psychosocial Nursing for the Professional Nurse, and NURS 2928 Professional Nursing Lab I *Corequisite:* none
This course focuses on the leadership responsibilities of a professional nurse. Students will be able to identify and develop professional leadership skills which include management, collaboration, ethical decision making, delegation, supervision, advocacy, teamwork, quality and safety, assessing learning needs, teaching and evaluation when working with nursing personnel, patients, family members, and the health care team members. Transfer Curriculum Goal(s): none

NURS 2936 - Professional Nursing Practicum II (4 credits)
Prerequisite: NURS 2922 Professional Nursing Practicum I, NURS 2923 Role Transition: LPN to Professional Nurse, NURS 2925 Medical Surgical Professional Nursing I, NURS 2926 Psychosocial Nursing for the Professional Nurse, and NURS 2928 Professional Nursing Lab I *Corequisite:* none
This capstone course provides students with the opportunity to practice theory and skills in a clinical setting. The course will address advanced professional nursing skills, care management, prioritization and care for multiple clients, health promotion across the lifespan, integration of management systems into health care, evaluation of patient (or client) safety and quality of care, and community health referral processes. Students will identify and model advanced cognitive and technical professional nursing skills in a variety of health care settings. Transfer Curriculum Goal(s): none

NURS 2945 - Medical Surgical Professional Nursing II (3 credits)
Prerequisite: NURS 2922 Professional Nursing Practicum I, NURS 2923 Role Transition: LPN to Professional Nurse, NURS 2925 Medical Surgical Professional Nursing I, NURS 2926 Psychosocial Nursing for the Professional Nurse, and NURS 2928 Professional Nursing Lab I *Corequisite:* none
This course expands on critical thinking associated with the role of the Professional Nurse in the care of clients experiencing complex, multi-system, and acute conditions. Students will learn to apply evidence-based

practices for the treatment and recovery of diverse patients across the lifespan. Integrated within the course is the application of advanced disease processes associated with body-system conditions. The use of pharmaceuticals and alternative treatment modalities are included as they apply to emergency care, oncology, post-operative management, and end-of-life care. Transfer Curriculum Goal(s): none

NURS 2946 - Maternal, Newborn, and Pediatric Nursing for the Professional Nurse (3 credits)
Prerequisite: NURS 2922 Professional Nursing Practicum I, NURS 2923 Role Transition: LPN to Professional Nurse, NURS 2925 Medical Surgical Professional Nursing I, NURS 2926 Psychosocial Nursing for the Professional Nurse, NURS 2928 Professional Nursing Lab I *Corequisite:* none
This course provides a holistic approach to the care of maternal, newborn, and pediatric patients. Students will build upon previously learned concepts of routine and high-risk childbearing women, neonates, and pediatric patients within a family context. Evidence-based practice, quality improvement, and ethical/legal principles are presented and applied throughout the course. The course uses a family-centered approach to health promotion, prevention of further complications, patient education, and disease processes for childbearing women and pediatric patients. Emphasis is placed on individualizing patient care to families of maternal, newborn, and pediatric patients. Transfer Curriculum Goal(s): none

NURS 2948 - Professional Nursing Lab II (2 credits)
Prerequisite: NURS 2922 Professional Nursing Practicum I, NURS 2923 Role Transition: LPN to Professional Nurse, NURS 2925 Medical Surgical Professional Nursing I, NURS 2926 Psychosocial Nursing for the Professional Nurse, NURS 2928 Professional Nursing Lab I *Corequisite:* none
This course focuses on further developing advanced nursing processes and clinical reasoning. Students will learn complex nursing skills, comprehensive assessments, and how to integrate nursing care of multiple patients across the lifespan. Topic areas include interpretation of the Minnesota Board of Nursing's Professional Nursing Scope of Practice, leadership, interdisciplinary teamwork, and comprehensive patient care management. Transfer Curriculum Goal(s): none

Philosophy (PHIL)

PHIL 1200 - Introduction to Logic and Critical Reasoning (3 credits)
Prerequisite: none *Corequisite:* none
This course is an introduction to a central part of Philosophy: the philosophical study of reasoning. Studies include the function and uses of language, the distinction between deductive and inductive arguments, methods for symbolizing and evaluating the validity of deductive arguments, and the detection of informal fallacies. Students will gain practical skills used in the evaluation of inductive and deductive arguments, which are applicable at all levels of reasoning. Transfer Curriculum Goals(s): 2, 4

PHIL 1220 - Human Ethics (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course presents students with an examination of the basic philosophical questions about moral values through the analysis of various controversial issues. Students will increase their understanding of how ethical decisions are created and evaluated through reading, writing, and discussion. Transfer Curriculum Goal(s): 6

PHIL 1230 - Philosophy of Religion (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course will focus on the relationship of reason and religious belief. Topics and issues that will be explored include: religious experience, theistic arguments for the existence of God, the problem of evil, religious language, religious pluralism, the relationship of religion to science, the relationship between religion and morality, feminist concerns within religion, as well as a comparison of Western theism and Eastern religions. No previous knowledge/experience of philosophy is required. Transfer Curriculum Goal(s): 6, 8

PHIL 1271 - Critical Thinking in Modern Society (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
The course centers on learning to think critically in a field or discipline. Emphasis is on developing an awareness of thinking in relation to others, and the assimilation of reasoning skills into life. Transfer Curriculum Goal(s): 2, 9

Political Science (POLS)

POLS 1205 - American Government and Politics (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is an overview of the American federal government. Students will learn political theory and ideology, the history and foundation of the federal government, campaigns and party politics, constitutional issues, domestic and foreign policy, and the structure, functions, branches, and operations of the federal government (including Congress, the presidency, the judiciary, and other federal agencies). Transfer Curriculum Goal(s): 5, 9

POLS 1210 - Environmental Politics (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course in environmental politics will examine the human impact on the natural world - globally, regionally, and locally. It will examine the effects on both the national and international level. It will discuss the impact of recent environmental changes and examine various, potential, often conflicting, political solutions to the problems. Topics covered may include, but will not be limited to, global climate change, population patterns, energy use, international conflict and social justice. Transfer Curriculum Goal(s): 5. 10

Practical Nursing (PRSG)

PRSG 1110 - Foundations of Practical Nursing (3 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human Body, ENGL 1276 English Composition, HPPC 1002 Medical Terminology, HPPC 1000 Medical Dosages, and HPPC 1004 Pharmacology. Must be admitted to Practical Nursing program *Corequisite:* none
This course will provide an introduction to the theoretical foundation for basic focused assessment and nursing skills. Students will be given an opportunity to demonstrate skills in the laboratory setting. Instruction of the nursing process provides the student with a beginning framework for decision making. The key concepts of teamwork and collaboration, safety, quality improvement, professional identity/behavior, patient/relationship centered care, nursing judgment/evidence based practice, and managing care and informatics/technology are introduced. Application of pathophysiology and nutrition concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 1200 - Nursing Care of the Adult Theory I (4 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human Body, ENGL 1276 College Composition, HPPC 1002 Medical Terminology, HPPC 1000 Medical Dosages, and HPPC 1004 Pharmacology. Must be admitted to the Practical Nursing program *Corequisite:* none
This course will focus on the care of adults and older adult clients and assists the student in applying the concepts of the health-illness continuum, nursing process and holism in health promotion, and illness prevention. Students will study the disease processes, as well as nursing management for the client with respiratory, cardiovascular, hematological, lymphatic, endocrine and immune disorders. Application of pathophysiology, nutrition and pharmacology concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 1300 - Medication Administration for Practical Nurses (3 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human Body, ENGL 1276 College Composition, HPPC 1000 Medical Dosages, HPPC 1002 Medical Terminology, and HPPC 1004 Pharmacology. Must be admitted to the Practical Nursing program *Corequisite:* none
This course will provide an introduction to fundamental concepts of medication administration. Students will be given an opportunity to demonstrate safe medication administration skills in simulated clinical settings for diverse individual patients across the lifespan. Core concepts and application of pharmacology and drug management will be integrated throughout the course. The role of technology for safe medication administration and legal documentation will be explored. Transfer Curriculum Goal(s): none

PRSG 1410 - Human Development Across the Lifespan (2 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human Body, ENGL 1276 English Composition, HPPC 1000 Medical Dosages, HPPC 1002 Medical Terminology, and HPPC 1004 Pharmacology. Must be admitted to Practical Nursing program *Corequisite:* none
This course will focus on the theories of human development and progressive stages of physical, psychosocial, cognitive and moral development throughout the lifespan from prenatal considerations to end of life. Students will apply evidence-based practices and theories which will promote patient-centered, high quality of life healthcare delivery interventions. Transfer Curriculum Goal(s): none

PRSG 1500 - Clinical Lab I (4 credits)
Prerequisite: BIOL 1240 Health and Disease in the Human Body, ENGL 1276 College Composition, HPPC 1000 Medical Dosages, HPPC 1002 Medical Terminology, and HPPC 1004 Pharmacology. Must be admitted to Practical Nursing program *Corequisite:* none
This course provides the student opportunities to apply nursing judgment using the nursing process to implement safe, patient/relationship centered care in selected healthcare settings. Students will complete focused assessments, collect data and implement skills learned in the classroom lab settings. Students will develop therapeutic/collegial communication and customer service skills working with individual patients, families and healthcare team members. Pathophysiology, nutrition and pharmacology concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 2100 - Nursing Care of the Adult Theory II (4 credits)
Prerequisite: PRSG 1110 Foundations of Practical Nursing, PRSG 1200 Nursing Care of the Adult Theory I, PRSG 1300 Medication Administration for Practical Nurses, PRSG 1410 Human Development Across the Lifespan, and PRSG 1500 Clinical Lab I *Corequisite:* none
This course will build upon the concepts learned in Nursing Care of the Adult Theory I. Students will continue to apply the concept of the health-illness continuum, nursing process, and holism in health promotion and illness prevention. Student will study the disease processes, as well as nursing management for the client with digestive, reproductive, genitourinary, neuro-sensory, integumentary, musculoskeletal disorders and patients who require operative care. Application of pathophysiology, nutrition, and pharmacology concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 2210 - Psychosocial Nursing Care (2 credits)
Prerequisite: PRSG 1110 Foundations of Practical Nursing, PRSG 1200 Nursing Care of the Adult Theory I, PRSG 1300 Medication Administration for Practical Nurses, PRSG 1500 Clinical Lab I, and PRSG 1410 Human Development Across the Lifespan *Corequisite:* none
This course will focus on the understanding of human behavior and assists in developing skills in the care of clients with psychiatric and social/behavioral problems. Students will explore common psychiatric and behavioral disorders as well as promote and maintain the mental health of individuals. Application of pathophysiology, nutrition, and pharmacology concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 2220 - Nursing Care of Women, Infants and Children (2 credits)
Prerequisite: PRSG 1110 Foundations of Practical Nursing, PRSG 1200 Nursing Care of the Adult Theory I, PRSG 1300 Medication Administration for Practical Nurses, PRSG 1500 Clinical Lab I, and PRSG 1410 Human Development Across the Lifespan *Corequisite:* none
This course will focus on a family-centered approach to obstetric nursing and care of the pediatric client. Students will explore normal and high-risk pregnancies, normal growth and development, and common pediatric disorders. Application of pathophysiology, nutrition, and pharmacology concepts are applied to common diseases discussed in the course. Transfer Curriculum Goal(s): none

PRSG 2410 - Transition to Practice (2 credits)
Prerequisite: PRSG 1110 Foundations of Practical Nursing, PRSG 1200 Nursing Care of the Adult Theory I, PRSG 1300 Medication Administration for Practical Nurses, PRSG 1500 Clinical Lab I, and PRSG 1410 Human Development Across the Lifespan *Corequisite:* none
This course will focus on facilitating the transition of the student to the role of a licensed practical nurse (LPN). Students will learn concepts involved in assigning and monitoring other healthcare personnel, as well as career development options that enhance career mobility. The need for lifelong learning will be emphasized. Standards of practice and the importance of practicing in accordance to state regulations and statutes for the scope of practice for the LPN are examined. Transfer Curriculum Goal(s): none

PRSG 2600 - Clinical Lab II (4 credits)
Prerequisite: PRSG 1110 Foundations of Practical Nursing, PRSG 1200 Nursing Care of the Adult Theory I, PRSG 1300 Medication Administration for Practical Nurses, PRSG 1500 Clinical Lab. I, and PRSG 1410 Human Development Across the Lifespan *Corequisite:* none
This course will focus on providing a clinical experience for students to apply content learned throughout from the Practical Nursing program. Students will apply nursing judgment using evidence-based care, critical thinking, and clinical judgment to implement safe, patient/relationship- centered care with sensitivity and respect for the diversity of human experience in all age categories across the lifespan. Behaviors of professionalism are incorporated throughout the course. Transfer Curriculum Goal(s): none

Psychology (PSYC)

PSYC 1200 - Introduction to Psychology (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course presents a survey of contemporary and historical psychology, including the biological bases of behavior, the effects of social conditioning and environmental influences on behavior and personality. Additional topics include cognitive mechanisms, social influences, personality disorders and treatment. Transfer Curriculum Goal(s): 5

PSYC 1210 - General Psychology (4 credits)
Prerequisite: College reading level determined by assessment scores
Corequisite: none
Psychology is the science of behavior and mental processes. This course is a survey of the fundamental principles, research findings, and theories in psychology. Students will learn the core ideas and findings in the scientific study of behavior and the mind. Students will learn about many topics in psychology including brain anatomy and function, learning, human development, intelligence, perception, memory, emotions, motivation, personality, social psychology, sleep and dreaming, and psychological disorders and their treatments. Transfer Curriculum Goal(s): 5

PSYC 1220 - Environmental Psychology (3 credits)
Prerequisite: PSYC 1200 Introduction to Psychology *Corequisite:* none
This course focuses on preferred environments, environmental stress and coping, and conservation behavior in a healthy way to build a more sustainable future. In this course, students will examine the relationship between environment and human behavior. Transfer Curriculum Goal(s): 5, 10

PSYC 1225 - Health Psychology (3 credits)
Prerequisite: PSYC 1200 Introduction to Psychology (can be taken concurrently) *Corequisite:* none
This course focuses on the psychological and behavioral aspects of physical and mental health, taking into account cross-culturally differences. Students will focus on the mind-body connection, major illness and implications for prevention, and impact on health care policy. Transfer Curriculum Goal(s): 5, 7

PSYC 1250 - Life Span Development (3 credits)
Prerequisite: PSYC 1200 Introduction to Psychology (can be taken concurrently) *Corequisite:* none
This course provides a comprehensive view of human development from conception to death. Topics include research methodology, theoretical perspectives and important aspects of physical, cognitive and psychosocial changes occurring throughout the lifespan. In addition students will focus on the application of research and theory to current issues. Transfer Curriculum Goal(s): 5, 7

PSYC 1300 - Social Psychology (3 credits)
Prerequisite: PSYC 1200 Introduction to Psychology or PSYC 1210 General Psychology *Corequisite:* none
This course is an introduction to the psychological aspects of social behavior. Students will learn about social cognition, attitudes, social behavior, group processes, altruism, discrimination, social justice, and ethics and research methods in social psychology. The role of culture and diversity in human behavior will be emphasized. Transfer Curriculum Goal(s): 5, 9

PSYC 1320 - Abnormal Psychology (3 credits)
Prerequisite: PSYC 1200 Introduction to Psychology or PSYC 1210 General Psychology *Corequisite:* none
This course is an introduction to the diagnoses, causes, and treatments of psychological disorders. Students will learn the descriptions and prevalence of major disorders in the Diagnostic and Statistical Manual of Mental Disorders (DSM), as well as their theoretical causes and associated treatments. The role of culture and diversity in mental illness will also be explored. Some of the disorders that will be studied in detail include mood disorders, anxiety disorders, trauma-related disorders, eating disorders, addictive disorders, schizophrenia, developmental disorders, and personality disorders. Transfer Curriculum Goal(s): 5, 7

PSYC 1350 - Statistics for Psychology (4 credits)
Prerequisite: MATH 1260 College Algebra or MATH 1265 Elementary Statistics and PSYC 1200 Introduction to Psychology or PSYC 1210 General Psychology *Corequisite:* none
This course is intended for anyone interested in learning basic psychological research design and statistical analysis. Students will use basic mathematical and computerized procedures to analyze data in the behavioral sciences and to conduct descriptive and inferential data analyses. Students will choose and apply statistical procedures to help to answer psychological and behavioral scientific research questions. Students will also read, interpret,

and write results for behavioral science research. Transfer Curriculum Goal(s): none

Sociology (SOCI)

SOCI 1200 - Introduction to Sociology (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course presents an overview of the characteristics, structures, and processes that shape human societies. Students will examine the impact of social forces on individuals and groups as well as the concurrent effect of individuals on society. Course emphasis is on cultural diversity and globalism. Transfer Curriculum Goal(s): 5, 7

SOCI 1205 - Drugs and Society (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is a study of the use and abuse of substances labeled as drugs in society. Topics covered will include specific drugs and their related pharmacology, histories, uses, and mechanisms of social control. Students will also examine criminal, economic, and cross-cultural aspects of drug use. Transfer Curriculum Goal(s): 5, 9

SOCI 1220 - Marriage, Family and Relationships (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces students to the diversity and theoretical perspectives of human relationships, marriages, and families in contemporary societies. Students will study diverse families in their functioning around intimacy, work, children, violence, marriage, divorce, economics, race, and gender. Common myths and challenges related to stereotypes of the “typical” family and “functional” relationships will be explored. Transfer Curriculum Goal(s): 5, 7

SOCI 1225 - Human Diversity (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course provides an overview of individual, institutional, and cultural/societal issues of: racism, sexism, classism, ableism, heterosexism, ageism, and other forms of oppression. The student will address both disadvantage

and privilege, concluding with an examination of social activism. Transfer Curriculum Goal(s): 5, 7

Spanish (SPAN)

SPAN 1001 - Introduction to Spanish (4 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces basic Spanish vocabulary and grammar. Students will develop reading, writing, listening, and speaking skills using the present tense and commonly used vocabulary. They will be exposed to and develop an understanding and appreciation of the literature, history, culture, and geography of the Spanish-speaking world. Transfer Curriculum Goal(s): 8

SPAN 1002 - Spanish II (4 credits)
Prerequisite: SPAN 1001 Introduction to Spanish, one year of high school Spanish with a C or better grade or instructor permission *Corequisite:* none
This course introduces basic Spanish vocabulary and grammar. Students will develop reading, writing, listening, and speaking skills using the present tense and commonly used vocabulary. They will be exposed to and develop an understanding and appreciation of the literature, history, culture, and geography of the Spanish-speaking world. Transfer Curriculum Goal(s): 8

SPAN 1500 - Spanish Latin American Culture (3 credits)
Prerequisite: none *Corequisite:* none
This course is an introduction to the civilization and culture of Spain and Spanish America. Students will learn about the pre-Columbian era that existed before the arrival of the Spaniards, including the Olmec, Maya, Toltec, and Aztec civilizations. The destruction of the pre-Columbian civilizations by the Conquistadors will also be analyzed. The course is taught in English; no previous knowledge of Spanish is required. Transfer Curriculum Goal(s): 6, 8

SPAN 2200 - Intermediate Spanish Language and Culture I (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course introduces literature, history, culture, and geography of the Spanish-speaking world. Students will continue to develop their languages skills and cultural knowledge of the Hispanic world. They will study and review many aspects of the Spanish grammar, with emphasis on present subjunctive, ser and estar and preterit/imperfect. Short stories, poems, and

essays will introduce the student to many Hispanic writers, both past and present. Transfer Curriculum Goal(s): 8

SPAN 2250 - Intermediate Spanish Language and Culture II (3 credits)
Prerequisite: SPAN 2200 Intermediate Spanish Language and Culture I
Corequisite: none
Students will continue reading, speaking, writing, and listening in the Spanish language for refinement and acquisition of grammar concepts. A variety of literary genres will be studied, including a full length play. Ample opportunity is available for communicating in both oral and written Spanish. A greater awareness of Hispanic culture and history will be obtained through readings and cultural vignettes. Transfer Curriculum Goal(s): 8

Theatre (THTR)

THTR 1100 - Introduction to Theatre (3 credits)
Prerequisite: Placement determined by a college ready assessment score in reading *Corequisite:* none
This course is an overview of theatre as an art form including a brief history of the theatre and an examination of the various theatre arts and crafts. Students will explore the multiple roles within theatre, including playwriting, directing, acting, and designing for the stage. Students will learn about the cultural significance of theatre, analyze dramatic literature, and participate in theatre projects. Transfer Curriculum Goal(s): 6

Welding (WELD)

WELD 1501 - Introduction to Welding (3 credits)
Prerequisite: none *Corequisite:* none
In this course, students learn about basic oxy/fuel cutting and welding, Shielded Metal Arc Welding (SAMW), Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW) processes and the safety concerns connected with them. To demonstrate their knowledge, students will practice appropriate welding techniques as applied to various materials and joint types in the flat, horizontal, vertical, and overhead positions. Transfer Curriculum Goal(s): none

WELD 1558 - Print Reading for Welders (2 credits)
Prerequisite: Placement determined by a minimum entry assessment score in reading *Corequisite:* none
This course will give students an understanding of basic mechanical drawing principles. Topics include the alphabet of lines, arrangement of views, orthographic projections, scaling, dimensioning, tolerancing, and symbols. Students will read and interpret mechanical drawings to develop the skills necessary to fabricate individual component parts. Written tests and Fundamental tests will be administered in accordance with the American Welding Society (AWS) and the appropriate correlating code books. Transfer Curriculum Goal(s): none

WELD 1560 - Interpreting Symbols (2 credits)
Prerequisite: none *Corequisite:* none
This course examines the fundamental component of welding prints that make up structures in the welding industry. To accurately layout and fabricate parts, the welder will need basic knowledge of print lines, dimensions, notes, and welding symbols. Students will breakdown welding prints to develop the skills necessary to fabricate individual component parts that will make-up welded structures. Written and Fundamental tests will be administered in accordance with the American Welding Society (AWS) and the appropriate correlating code books. Transfer Curriculum Goal(s): none

WELD 1562 - Oxyfuel Welding and Cutting Process (2 credits)
Prerequisite: none *Corequisite:* none
This course covers the use of oxy-fuel equipment while welding, cutting, brazing, and using the Plasma Arc Cutting (PAC) and Air Carbon Arc Cutting (CAC-A) processes. There will also be an introduction into laser cutting equipment. A very important part of this course will be discussing safety as it relates to the thermal welding and cutting equipment. Time will be spent in the lab developing skills using the thermal welding and cutting processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Cuts will be made in the flat and horizontal positions. Written and Fundamental tests will be done in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

WELD 1564 - Shielded Metal Arc Welding (SMAW) (4 credits)
Prerequisite: none *Corequisite:* none
Students will study the safety concerns connected with the Shielded Metal Arc Welding (SMAW) process, along with an introduction into the types of power sources used for arc welding, process applications, electrode selections, overview of weld types, and other work-related safety conditions

in the welding field. Time will be spent in the lab developing skills using the SMAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and Fundamental tests will be done in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

WELD 1566 - Gas Metal Arc Welding (GMAW) / Flux Cored Arc Welding (FCAW) (4 credits)
Prerequisite: none *Corequisite:* none
Students will study the safety concerns connected with the Gas Metal Arc Welding (GMAW) and Flux Cored Arc Weld (FCAW). The GMAW process will be discussed in depth in relationship to the different type of modes of transfer available, shielding gases, and the different types of materials that can be welded. The FCAW process is similar in the type of equipment used for mode of transfer. The differences in the electrode types of gas-shielded wires and self-shielded wires will be discussed along with the types of shielding gases that are used. There will be discussions on the importance of how the welding process intersects with the arc welding symbols and codes. Along with this, we will also do a review of procedures used in the visual inspections of welds. Time will be spent in the lab developing skills using the GMAW and FCAW processes. Welds will be made in the flat, horizontal, vertical, and overhead positions. Written and Fundamental tests will be done in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

WELD 1568 - Gas Tungsten Arc Welding (GTAW) (4 credits)
Prerequisite: none *Corequisite:* none
This course covers the safety hazards and applications for Gas Tungsten Arc Welding (GTAW) in the welding industry. Material covered in the classroom will be power sources, setup, types of current, current selection, shielding gases and torch types. Various procedures will be discussed for welding different metals (Aluminum, Stainless Steel, and Mild Steel) and potential problems that may be encountered. Applications for the process in different industries, and the use of back purging and its application will also be discussed. Welds will be made in the flat, horizontal, vertical and overhead positions. Written and Fundamental tests will be done in accordance with the American Welding Society (AWS) codes and standards. Transfer Curriculum Goal(s): none

WELD 1570 - Metallurgy and Mechanical Properties of Materials (1 credit)
Prerequisite: none *Corequisite:* none
This course covers the study of metals and how the effects of welding and heat treatments affect them. Terminology dealing with metallurgy will be an important part of the course. Physical and mechanical properties of ferrous and nonferrous metals will be covered along with the classifications of the different types of metals. By understanding the mechanical properties of metals, you will gain an understanding of the range of usefulness of the materials in the metal working community. Written tests will be done in accordance with the American Welding Society (AWS) codes and standards.
Transfer Curriculum Goal(s): none

WELD 1580 - Welding Technologies Capstone Project (3 credits)
Prerequisite: WELD 1566 GMAW/FCAW and CMAE 1514 Safety Awareness
Corequisite: none
This course presents students with a real-world manufacturing project, utilizing the knowledge and experience gained in previous welding, fabrication, and manufacturing courses. This involves designing a complete project including fixtures and a timeline for completion. Parts will be manufactured, inspected for tolerances, and assembled into a final product.
Transfer Curriculum Goal(s): none

WELD 1585 - Welding Internship (3 credits)
Prerequisite: CMAE 1514 and WELD 1566 *Corequisite:* none
This course is designed around a student attaining an internship in a business. The student internship may be paid or unpaid as agreed to between the student and the business. The student will demonstrate welding competencies as designed by the instructor and the business. A person from the business will monitor the student's work. The student will demonstrate professionalism and proper welding techniques to pass the course. The instructor will maintain bi-weekly contact with the business to discuss the student progress reviews. An internship plan will be developed for each student. Actual hours of on-the-job work experience will be outlined in the internship plan, but shall be no less than 120 hours in total.
Transfer Curriculum Goal(s): none

Faculty Directory

Kristen Altman, Practical Nursing
B.S.N. Metropolitan State University

Ann Boldt, English
B.S. University of Wisconsin-Eau Claire
B.S. University of Minnesota, Mankato
M.A. Minnesota State University, Mankato
M.F.A. Minnesota State University, Mankato

Philip Darg, History and Government
B.A. University of Minnesota-Twin Cities
M.A. Minnesota State University, Mankato
M.A. Minnesota State University, Mankato
Ph.D. University of North Dakota

Stacey Foster, English
B.S. University of Minnesota-Duluth
M.F.A. Hamline University

Sarah Golon, Associate Degree Nursing
A.S. Century Community College
B.S. University of Minnesota
M.S. Walden University

Alexis Grinde, Biology
B.S. Bemidji State University
M.S.C. University of North Dakota
Ph.D. University of Minnesota

Kimberly Hodson, Practical Nursing and Associate Degree Nursing
A.S. Pine Technical and Community College
B.S. St. Scholastica
M.S.N. Walden University

Eric Jensen, Biology
B.S. University of Wisconsin - Stevens Point
M.S. University of Minnesota - Duluth

Christopher Keeler, Gunsmithing Technology
A.A.S. Pine Technical and Community College

Robert King, Networking
B.A. College of St. Thomas
M.A. American College of Education

Janet Kinney, Mathematics
B.S. University of Cape Town
M.S. University of Cape Town

Colton Lourey, Welding Technology
Diploma, Saint Paul College

Kristin Madigan, Practical Nursing
B.S.N. University of Minnesota, Mankato
M.S. Minnesota State University, Mankato

Christopher Morgan, Cyber Security
A.S. Community College of the Air Force
B.S. National American University

Kevin Muramatsu, Gunsmithing and Firearms Technology
Certificate, Pine Technical College
B.S. Olivet Nazarene University

Gregory Pardun, Automotive Technology
Diploma, Dakota County Technical College

Brittany Rappl, Nursing Assistant
Diploma, Pine Technical and Community College
A.S. Pine Technical & Community College
B.S.N. Bemidji State University

Jennifer Reynolds, Psychology
B.A. Marquette University
M.A. University of Minnesota Twin Cities

John Singh, Emergency Medical Services
B.A. Augsburg College
Licensed Community Paramedic
Licensed Paramedic

Rita Watson, Human Services Eligibility Worker
B.S. St. Cloud State University

Douglas Wickstrom, Automated Systems Technology
Technical Diploma, Wisconsin Indianhead Technical College

Mark Zierden, Automotive Technology
Diploma, Anoka Vocational Technical Institute

Administration

Joe Mulford, President
A.A. Moorhead State University
B.S. Saint Cloud State University
M.M.A. - Metropolitan State University
M.A. University of Nebraska - Lincoln
Graduate Certificate, University of Nebraska - Lincoln

Frank Christopherson, Vice President of Administration
B.S. University of Wisconsin - Superior
M.A. College of St. Scholastica, Duluth, Minnesota

Mike Colestock, Vice President of Academic and Student Affairs
B.A. University of St. Thomas
M.A. Crown College - St. Bonifacius, Minnesota

Farfum Ladroma, Dean of Student Success
B.A. University of Iowa
M.P.A. Upper Iowa University

Kierstan Peck, Dean of Student Affairs
B.A. Augustana University
M.A. St. Ambrose University, Davenport, Iowa

Therese Salber, Dean of Health Sciences & Liberal Arts
B.A. St. Cloud State University
M.A. Concordia University

Wendy Walburg, Dean of Continuing Education & Customized Training
District Coordinator, Child Care Aware of MN-NE
B.S. University of Northwestern

Sharon Weaver, Chief Human Resources Officer
B.A. Southern Illinois University - Carbondale
M.B.A. Southern Illinois University - Carbondale

Janis Wegner, Finance Officer
B.S. St. Catherine University, St. Paul, Minnesota

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